

POST-DISASTER PSYCHOLOGICAL CAPITAL  
AND ORGANISATIONAL RESILIENCE: A  
NARRATIVE ANALYSIS OF SMALL BUSINESS  
OWNERS'/MANAGERS' EXPERIENCES

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A thesis submitted in partial fulfilment of the requirements for the Degree

of

**Master of Commerce in Management**

at the University of Canterbury

by

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**University of Canterbury**

2018

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## **Acknowledgements**

This thesis has been made possible by the generous help and support given by my principal supervisor, Dr Girish Prayag, and associate supervisor, Dr Lucie Ozanne. I could not even think of completing the task without your constant guidance and feedbacks. Thanks also for sharing all the valuable research skills and knowledge with me along the way. I learned so much from you both, and this will be the everlasting treasure of my life.

My special thanks are also given to the other staff members of the Department of Management, Marketing and Entrepreneurship. You have provided me with constant help and advice during these two years. To Dr Paul Knott, Dr Sanna Malinen, Dr Bernard Walker, Dr Colleen Mills, Dr Sarah Wright, Dr Herb de Vries, Dr Michael Hall, Dr Ekant Veer, Dr Sussie Morrish, Dr Chris Chen and Dr Ann-Marie Kennedy, it has been my honour to have your support along the way and be one member in your class.

To the research participants, you made this study possible. I learned far more than what this thesis has covered from you. I learned about perseverance, love, optimism, modesty and endless passion from you. I always feel grateful and inspired because of you, so thank you all.

To my wonderful family, thank you for supporting me each and every day. I know that you always will, as you have been giving me the most unconditional love in this world all this time. Sometimes I feel guilty being apart from you for so many years, since I came to New Zealand when I was 17. Being apart from you most of the time in the past seven years was hard for both me and you, but I hope the achievements I made in these years bring you happiness and joy. I love you all from the bottom of my heart.

Finally, the most special thanks is for my partner, Yuchen, who sacrificed a lot to come to New Zealand with me. You have been incredibly patient with me, and I owe you the deepest apology whenever I became unreasonable and fragile in the past two years. You are the reason that I am so complete and blessed right now. You are the butter to my bread, and the breath to my life. This thesis is for you, and I hope that it is worth a good read.



## **Abstract**

Two minutes after midnight on 14 November 2016, a magnitude 7.8 (Mw) earthquake struck the town of Kaikoura, New Zealand. The earthquake resulted in two deaths, over \$900 million in insurance claims, significant damage to infrastructure such as roads and buildings, and resulted in stressful situations for local businesses and the community. Kaikoura is well known for its tourism resources, as a quarter of the jobs in the Kaikoura District are in the tourism sector. Tourist arrivals decreased dramatically because of the earthquake, and local tourism SMEs lost substantial customers, if not all, and this negatively impacted on their revenue. Organisational resilience has emerged as a significant issue in the post-disaster literature, and this study attempts to understand how tourism small and medium-sized enterprises (SMEs) can develop organisational resilience to cope with unexpected changes, as well as incremental changes, as part of business as usual. Given that most of the local tourism SMEs in Kaikoura are family-owned and small in size, the role of the owners and managers has become essentially important in these businesses to build organisational resilience. Thus, this study aims at incorporating psychological capital into the study of organisational resilience. The study investigated how the psychological capital of business owners/managers could influence the organisational resilience of tourism SMEs in post-disaster Kaikoura.

In doing so, this study was grounded in an interpretivist research paradigm, and adopted a narrative analysis approach to understand the influence of psychological capital on organisational resilience. The owners and managers of 17 local tourism SMEs took part in in-depth interviews. As part of an interpretivist paradigm and based on the requirements of narrative analysis, the researcher analysed and interpreted the social reality of local businesses in Kaikoura and configured one general narrative story, as well as three individual narrative stories that complement the initial thematic analysis that was used to analyse the data. The patterns and relationships within the data in relation to the components of psychological capital and their influence on organisational resilience were embedded in the general narrative story, explaining the main similarities and differences among the 17 tourism SMEs. The three individual narrative stories were configured based on the data of the three most representative participants, highlighting the most important and interesting findings in relation to the research questions. Through this study, the researcher has identified that in

general the positive psychological capital of the participants enhanced organisational resilience during the post-disaster recovery. Different psychological capital components, namely, self-efficacy, hope, optimism and psychological resilience, have enhanced different aspects of the organisational resilience of the SMEs. In addition, the researcher also found that the adaptive resilience of the tourism SMEs was more often enhanced by the psychological capital of the participants as opposed to planned resilience. Moreover, this study found that it was through different coping mechanisms used by the participants after the earthquake that psychological capital had a positive influence on organisational resilience. Last but not least, this study identified that a lack of support from the government and other local businesses seemed to have weakened the psychological capital of some owners/managers of new businesses, in particular, which might have become an obstacle in the recovery of the community post-disaster.

This study contributes to the literature by suggesting that psychological capital of business owners/managers can have an influence on organisational resilience. Except for a few studies that have examined social capital and community resilience, the relationship between psychological capital and organisational resilience within a post-disaster context has not been examined before. This study shows also that SMEs generally lack planned resilience, and provides practical recommendations for enhancing planned resilience in such businesses. From a methodological perspective, this study reinforces the value of employing narrative analysis to understand the experiences of entrepreneurs, owners and managers in the tourism sector. In addition, this study emphasises and exemplifies the importance of conducting narrative analysis in an “authentic” way, which is often neglected by the tourism scholars. The authenticity of the narrative analysis in this study was reached by carefully addressing each requirement and demonstrating each characteristic of narrative analysis, and then presenting those requirements and characteristics in the general narrative story.

# 1 Thesis Overview

## 1.1 Introduction

At 12.02 a.m., on Monday 14 November 2016 NZDT, a magnitude 7.8 (Mw) earthquake occurred in Kaikoura, New Zealand. The magnitude of the Kaikoura earthquake is second only to one New Zealand earthquake since European settlement. The earthquake caused two deaths and over \$900 million in insurance claims. In addition, State Highway 1, also known as the coastal road that connects Picton, Kaikoura and Christchurch, was severely damaged due to the earthquake and was partly closed for 13 months after it (Bayer, 2017). According to the Ministry of Business, Innovation and Employment (MBIE) (2017), a quarter of the jobs in the Kaikoura District are in the tourism sector and 34.1% of the GDP in the district comes from the international tourism spend. Due to the road closure, as well as the negative media attention about the earthquake, Kaikoura experienced a sharp decrease in tourism expenditure. Tourism expenditure from both domestic and international tourists in the Kaikoura District went down by NZ\$21 million for November and December 2016, with the international spend dropping to zero for the first five weeks following the earthquake. The domestic tourism spend in general was down 7% on forecast expenditure, and this decrease in the domestic level seems to be partly caused by the Kaikoura earthquake (MBIE, 2017). In addition, in December 2016, Kaikoura guest nights fell 80% when compared to December 2015 (Stats NZ, 2017). Although the town has to some degree experienced an increase in guest nights from December 2016, tourism arrivals were still 40% lower when compared to the pre-disaster figures (Stats NZ, 2017). More importantly, the flow-on impacts of the earthquake across the national economy are also estimated to be significant. MBIE (2017) has carried out scenarios analysis on different scenarios according to transport route reopenings and estimated rebuilding timelines. As a consequence, the three different scenarios are: (i) moderate-scale damage and quick rebuild; (ii) large-scale damage and quick rebuild; and (iii) large-scale damage and slow rebuild. Based on these scenarios, MBIE (2017) reports that the estimated loss to the national economy in 2017 and 2018 for scenarios 1 and 2 is NZ\$465 million of GDP, while the loss in total GDP is approximately NZ\$48 million larger in scenario 3. These scenarios to some extent present the recovery trajectories of the

community and highlight that Kaikoura is still recovering from the negative impacts of the earthquake.

Resilience has become a core term which is being increasingly adopted as a way to describe the capacity of a system to withstand changes, including the impact of an earthquake (Hall, Prayag, & Amore, 2018). In addition, McManus (2008) suggests that the ability of organisations to effectively respond to and recover from hazard events is important to society. The 2016 Kaikoura earthquake, as well as McManus's (2008) work, have constituted the starting point of this study, as the researcher aims to understand the resilience of tourism SMEs in a post-disaster context. In order to better understand the situation in Kaikoura, the researcher attended the "Kaikoura Challenge" in May 2016, which was sponsored by the University of Canterbury and the New Zealand Transport Agency. The "Kaikoura Challenge" asked university students to generate potential recovery strategies for small businesses in Kaikoura after listening to the stories of small business owners in a local panel. The majority of the small businesses in the panel were tourism businesses, and almost all the small business owners in the panel expressed that the only thing they desired was "to survive". More importantly, these business owners said that the only way for their business to survive was through increasing tourist numbers. Based on the post-disaster situation of these tourism businesses in Kaikoura, the researcher aims to investigate whether the psychological capital of owners and managers in these tourism SMEs can possibly help these businesses build organisational resilience in a post-disaster context.

As Gardner (2002) suggests, the key resource for organisations in the new economy is no longer capital, land or hard assets, but human capital. When thinking about the psychological aspects of human capital, Luthans, Youssef and Avolio (2007) define psychological capital as the positive state of development of an individual. Drawing from positive psychology and positive organisational behaviour theory, scholars believe that psychological capital can generate competitive advantage for organisations when properly invested, leveraged, developed and managed (Luthans et al., 2007). In addition, the literature also suggests that positive psychological capital seems to play an important role in individuals bouncing back from natural disasters (e.g., Benight & Bandura, 2004; Crabtree, 2013; Ferraro, 2003; Kuijer et al., 2014). As a consequence, psychological capital is likely to play a key role in recovering from crisis events like the Kaikoura earthquake.

Given the fact that SMEs are vulnerable to natural disasters, are constrained by less formal training, and generally lack preparedness and feasible planning (e.g., Johnston et al., 2007; Orchiston, 2012), it becomes possible for this study to probe into a unique relationship that might have contributed to their resilience. This thesis introduces an approach that incorporates individual psychological capital into the study of organisational resilience. More specifically, this study aims to explore how the psychological capital of the owners and managers of tourism SMEs in Kaikoura influences the resilience of their businesses in a post-disaster context. The thesis will address three major deficits in previous literature streams of disaster management, psychological capital and organisational resilience. First, this thesis includes the lack of research attention on incorporating psychological capital into organisational resilience research in the tourism sector. Second, this thesis will complement the poor application of the qualitative research method in psychological capital research. And finally, this thesis introduces the application of the narrative analysis method, which is poorly understood and applied in tourism studies (Mura & Sharif, 2017).

## **1.2 Research background**

### **1.2.1 Natural disaster and the earthquake**

Natural disasters such as tsunamis, earthquakes, forest fires, volcanic eruptions, climate change and floods are increasing in frequency and can cause serious damage to tourism destinations and tourism businesses (e.g., Beniston, 2012; Chew & Jahari, 2014; Hall, 2010; Henderson, 2007; Hystad & Keller, 2008; Mitchell, 2003; Tsai & Chen, 2011). Among different kinds of natural disasters, an earthquake stands for a distinct case. Earthquakes are extremely unpredictable and very often they allow no time to escape (Orchiston, 2012; Tsai & Chen, 2010). Earthquakes can cause large casualties, huge damage to infrastructure, a very slow recovery process, and post-traumatic stress disorder (PTSD) for people who have experienced them (e.g., Fan, Zhang, Yang, Mo, & Liu, 2011; Hall, Malinen, Vosslander, & Wordsworth, 2016; Satake, 2014). When it comes to the local tourism businesses, the problems brought about by natural disasters become even more severe because they are often heavily dependent on the local natural resources to exist and survive. Earthquakes, in particular, are considered to be the most catastrophic events that cause huge damage to tourism destinations and the tourism industry (e.g., Mazzocchi & Montini, 2001; Wang, 2009).

New Zealand tourism businesses are exposed to high seismic risk due to the geographic location of this country (Orchiston, 2013). The New Zealand tourism industry, like all other types of industry, is dominated by SMEs (Ministry of Economic Development, 2011). Some studies have also shown that SMEs, when compared to large businesses, are mostly ill prepared for the aftermath and the recovery process (e.g., Cioccio & Michael, 2007; Johnston et al., 2007; Runyan, 2006). However, it has been found in the literature that SMEs often have their own path to get through natural disasters and positively recover from the loss (Biggs, Hall, & Stoeckl, 2012; de Vries & Hamilton, 2016). de Vries and Hamilton (2016) suggest that the 2010-2011 Canterbury earthquake sequence has provided some small business owners with numerous opportunities to change their businesses for the better. For example, some of the small business owners who have experienced the Canterbury earthquakes could use this disaster as a catalyst to change the operational models, ownership structures, staffing strategies, mission statements and growth strategies of their businesses (de Vries & Hamilton, 2016). Concluding from the above literature, it seems that SMEs are more likely to have emergent strategies and adapt to the changes brought about by natural disasters, rather than having well-prepared plans prior to the disasters. This trend leads to the following discussion on organisational resilience, which considers both the planning and adaptive capacity of businesses.

### **1.2.2 Organisational resilience**

Organisational resilience has emerged from the ecological sciences. Resilience refers to the ability of a system to maintain and adapt its structure and function in the face of external changes (Biggs et al., 2012; Folke, 2006; Gunderson & Holling, 2001; Holling, 1973). When thinking in an organisational context, Biggs et al. (2012) suggest that an enterprise is able to shift from solvency to insolvency, or from one core business activity to another, which resonates well with the origin of the resilience concept. Thus, organisational resilience refers to the ability of an organisation to generate awareness and reduce vulnerability to risky environments, to reinvent business strategies in the face of changes, to continuously be aware of and adjust to changes, and to proactively react before the need for a change becomes obvious (Burnard & Bhamra, 2011; Hamel & Valikangas, 2003). When it comes to the New Zealand context, McManus (2008) proposes the original model for organisational resilience

after incorporating 10 case study organisations in her research. McManus (2008) identifies three dimensions of organisational resilience, namely, situation awareness, keystone vulnerabilities and adaptive capacity. As a consequence, she defines organisational resilience as “a function of an organisation’s overall situation awareness, keystone vulnerability and adaptive capacity in a complex, dynamic and interdependent system” (p. 23). Stephenson (2010) builds upon McManus’s (2008) original model and further refines the model under two factors, adaptive capacity and planning. Thus, the refined model suggests that organisational resilience includes two dimensions, adaptive resilience and planned resilience (Lee, Vargo, & Seville, 2013; Orchiston, Prayag, & Brown, 2016). Nilakant, Walker, van Heugen, Baird, and de Vries (2014) further suggest that planned resilience is mostly identified in pre-disaster activities, while the adaptive resilience often emerges during the post-disaster period. The previous research related to organisational resilience provides the theoretical background for this study. This study will mostly focus on the models proposed by McManus (2008) and Stephenson (2010) to study the resilience of tourism SMEs in Kaikoura. The detailed literature review on organisational resilience, including the organisational resilience of SMEs in particular, will be provided in section 2.3. It is important to say that organisational resilience is an important topic in the disaster management literature (McManus, Seville, Vargo, & Brunsdon, 2008). Because the Kaikoura earthquake can be seen as an unexpected change that posed significant risks to local businesses, the two dimensions of organisational resilience are crucial for businesses to maintain and adapt their structures in the face of this unexpected natural disaster. The following section 1.2.3 will discuss another important concept adopted in this research, psychological capital.

### **1.2.3 Psychological capital**

Psychological capital refers to an individual’s positive state of development (Luthans et al., 2007). Investing in psychological capital highlights the importance of investing in human’s positive psychology. Unlike the negative by-product of a war perspective such as burnout, disengagement and workplace stress, psychological capital is a new approach that can meet the requirements of the changing environment (Luthans et al., 2007). The literature suggests that if properly invested in and developed, psychological capital can generate competitive advantage for organisations (Luthans et al., 2007). Scholars have identified four components of psychological capital, namely, self-efficacy, hope, optimism and resilience (hereafter, psychological resilience). Self-efficacy stands for the ability of people to positively execute

courses of action to deal with potential situations (Bandura, 1982). Self-efficacy is related to venture performance, and helps entrepreneurs to positively manage adverse situations that the business is facing (Baum & Locke, 2004; Bullough & Renko, 2013). Hope consists of three components, namely, goal, pathway and agency thinking. Drawing from Snyder (2002), hope refers to the perceived capability of an individual to derive pathways to reach the desired goals, and motivate oneself through agency thinking to use these pathways. Luthans et al. (2007) suggest that hopeful organisational leaders and managers are crucial to the survival and growth of organisations in the face of environmental changes and turmoil. In addition, when thinking in an entrepreneurial context, the 'pathway' component of hope suggests that the entrepreneurs who can demonstrate hope have the ability to come up with multiple pathways for the business to overcome difficulties in turbulent times (Baron, Franklin, & Hmieleski, 2016). Optimism refers to holding positive expectations for the future (Carver, Scheier, & Segerstorm, 2010). Studies have shown that optimism is positively related to authentic leadership and entrepreneurial venture creation intention (Lindebaum & Cartwright, 2010; Mathew & Gupta, 2015; Trevelyan, 2008). Psychological resilience, the last component of psychological capital, is the positive psychological capacity for an individual to rebound or bounce back from adverse situations (Luthans, 2002). de Vries and Shields (2006) suggest that psychological resilience is developed through life experiences rather than being an inborn personality trait, and that psychological resilience identified among the New Zealand SME owner-operators can positively contribute to business sustainability. Bullough and Renko (2013) suggest that entrepreneurs can benefit from being resilient in times of adversity, because psychological resilience helps them adapt to unexpected changes more rapidly. When linking to the disaster management literature, psychological capital also plays an important role for individuals to overcome the challenges associated with natural disasters. For example, self-efficacy can to some degree reduce PTSD arising from natural disasters, and can enhance precautionary action and emergency management ability (Benight & Bandura, 2004; Grothmann & Reusswig, 2006; Kim, Sharman, Cook-Cottone, Rao, & Upadhyaya, 2012). Optimism is positively related to individual wellbeing after earthquakes (Kuijer et al., 2014). Lack of hope can possibly lead to increased post-disaster depression (Crabtree, 2013). Also, psychological resilience is another crucial factor that positively leads to the recovery in the post-disaster period (e.g., Agani, Landau, & Agani, 2010; Ferraro, 2003).



### 1.3 Research questions

The psychological capital proposed by Luthans et al. (2007) is a relatively new approach for organisations today to invest in positive human psychological capacities, which can potentially result in enhanced business performance. Organisational resilience considers the ability of an organisation to rebound or bounce back from changes, and requires the business to invest in both adaptive capacity and planning capacity in order to be resilient (e.g., Lee et al., 2013; Stephenson, 2010). Drawing from the above discussion on the theoretical backgrounds of this study, both organisational resilience and psychological capital are directly related to the post-disaster recovery. However, psychological capital contributes to the post-disaster recovery of the individual, while organisational resilience is related to the post-disaster recovery of the business. As will be illustrated in this study, psychological capital seems to have an influence on organisational resilience through the specific coping mechanisms employed by SME owners/managers post-disaster. For the purpose of this study, the researcher aimed at incorporating psychological capital into the study of SME organisational resilience. In this way, individual post-disaster recovery is linked with post-disaster business recovery. Therefore, this idea forms the main research question of this study:

**“In what ways does the psychological capital of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?”**

Given that there are four components of psychological capital, in order to identify how each psychological capital component of the business owners and managers influences the organisational resilience of local tourism SMEs in post-disaster Kaikoura, the main research question is further divided into four dimensions:

Sub-RQ1: How does the self-efficacy of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?

Sub-RQ2: How does the hope of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?

Sub-RQ3: How does the optimism of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?

Sub-RQ4: How does the psychological resilience of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?

## **1.4 Research methodology**

To answer the above research questions, the researcher employed a qualitative research methodology. First, the study was guided by the interpretivist paradigm, because this paradigm allows the researcher to get close to the participants in post-disaster Kaikoura, and facilitates the interpretation process by entering the realities of the participants (Leitch, Hill, & Harrison, 2010). Second, the researcher conducted 17 in-depth semi-structured interviews with the owners and managers of local tourism SMEs in Kaikoura, which helped the researcher to probe deeper into the situation of the participants (Kajornboon, 2005). Third, a comprehensive thematic analysis was conducted on the data. In doing so, the researcher strictly followed Braun and Clarke's (2006) instructions and combined theoretical coding with inductive coding to identify all the possible patterns and relationships from the data. Fourth, the researcher conducted a narrative analysis to carefully address the main research question as well as the four sub-questions. A narrative analysis allows the researcher to collect elements and happenings, and eventually configure stories with the elements and happenings in a consistent plot (Polkinghorne, 1995). Given that narrative analysis assumes individual stories are reflective of social reality (Mura & Sharif, 2017), the researcher wishes to present the realities coming out from this study in an interesting, consistent and story-like form. In addition, narrative stories provide important information about both individual experience and its social environment (Riessman, 1993). This characteristic of narratives is suitable for the researcher to include the special post-disaster context in Kaikoura into the narrative stories, hence the results of this study. The researcher followed Polkinghorne's (1995) suggestion step by step to configure one general narrative story. This general narrative story glues together the patterns and relationships identified from the thematic analysis according to a clear temporal sequence, and also addresses all the characteristics of the narrative perspective such as the narrative diachronicity, hermeneutic composability, and context sensitivity and negotiability proposed by Bruner (1991). The aim of the general

narrative is to present the main similarities and differences identified from the 17 participants and their businesses. Finally, the researcher configured three individual narrative stories following the same principle suggested by Polkinghorne (1995). The individual narrative stories explain how the psychological capital identified from three representative participants influences the resilience of their businesses in post-disaster Kaikoura.

## **1.5 Research contributions**

### **1.5.1 Theoretical contributions**

The study will contribute to the literature in the following ways. First, the study builds on the organisational resilience literature, and expands on previous research of SME organisational resilience in the post-disaster context (e.g., Chang-Richards, Vargo, & Seville, 2013; de Vries & Hamilton, 2016; Orchiston, 2013) by showing how psychological capital has some influence on organisational resilience. Second, since psychological capital has been studied mostly by quantitative methods, this study can positively contribute to the psychological capital literature through the use of a qualitative research methodology, and highlights how the four components of the concept are interrelated and can be used to understand how businesses recover in post-disaster contexts. Third, narrative analysis is rarely used by tourism scholars (Mura & Sharif, 2017). As a consequence, this study can potentially contribute to expanding the use of narrative analysis in the tourism literature. More importantly, using narrative analysis as the guiding methodology in this study can address the issue of context sensitivity and negotiability throughout the research findings (Bruner, 1991). The context sensitivity and negotiability of a post-disaster context may not be addressed and specified if another qualitative methodology is adopted. In addition, the study shows how thematic analysis can be used to form the basis of narrative analysis, thus improving the credibility of findings generated from in-depth interviews with small business owners/managers. Fourth, this study contributes to the literature by introducing the psychological capital of business owners/managers as a potential factor which influences both individual and organisational disaster management and recovery capabilities.

### **1.5.2 Practical contributions**

Practically, this study will make several contributions as well. On the individual level, this study aims to contribute to the psychological wellbeing of the research participants, as well as the post-disaster resilience of the participating tourism SMEs. On the managerial level, this study will have practical implications for the tourism SME owners and managers about how to capitalise on their positive psychological capacity to enhance business performance. On the public policy level, this study aims to make the voice of the local tourism SMEs heard by the government. More importantly, as will be discussed in Chapter 4, the newly-established tourism SMEs in Kaikoura have suffered the most from the earthquake due to inadequate government support. This study will present the voice of these tourism SMEs and make suggestions in terms of public policy to support the recovery of small businesses accordingly. In addition, this study will call for new policies and support from policy makers to help tourism SMEs build organisational resilience, especially planned resilience.

### **1.6 Thesis outline**

This thesis consists of five chapters followed by a reference list and appendices. This section will outline the contents of each chapter.

Chapter 1 introduced the purpose of this study, as well as the theoretical background that guides this study. The research questions were identified in this chapter. In addition, a brief introduction to the research methodology, as well as the potential contributions of this study, were also included in this chapter.

Chapter 2 presents a detailed literature review on natural disasters, psychological capital and organisational resilience. It is worth noting that an SME and entrepreneurship context is included in the literature review.

Chapter 3 discusses the research methodology adopted in this study. First, this chapter presents the interpretivist research paradigm adopted in this study. Second, the detailed thematic analysis conducted on the research data gathered from 17 semi-structured interviews

is discussed, followed by a discussion of the narrative analysis which helps the researcher to configure four narrative stories that aim at answering the research questions.

Chapter 4 highlights the results of the thematic analysis, as well as the narrative analysis. The research data are reorganised under several themes, which helps to explain the possible patterns and relationships of the elements. Then, the results of the narrative analysis are presented by one general narrative story, as well as three individual narrative stories.

Chapter 5 discusses the theoretical, managerial and public policy implications stemming from this study, followed by the overall limitations of this study. This chapter also includes the recommendations for future research as well as the final conclusion of this study.

## **2 Literature Review**

### **2.1 Introduction**

Natural disasters can cause significant levels of damage to the tourism industry (e.g., Biggs et al., 2012; Orchiston, 2013). As a result, it becomes important to study how tourism organisations can overcome the challenges brought about by natural disasters. When it comes to the New Zealand context, this issue is considered extremely meaningful as the country experiences frequent earthquakes because of geological factors (e.g., Orchiston, 2013). Most of the tourism businesses in New Zealand are small in size and vulnerable to natural disasters. Considering the strong research interest in natural disasters, and the corresponding strategies businesses adopt to become resilient in the face of natural disasters (e.g., Biggs et al., 2012; de Vries & Hamilton, 2016; Orchiston, 2013), it is possible to think of a different but helpful path for organisations today to cope with the challenges. As this study aims to investigate in what ways the psychological capital of tourism SME owners/managers influences the organisational resilience of their businesses in post-disaster Kaikoura, the literature review chapter will discuss the following topics in order to provide a theoretical foundation for this research. First, this chapter includes the review of the literature on natural disaster, the impact of natural disaster on tourism businesses, the impact of earthquake on tourism businesses, and the impact of natural disasters on tourism SMEs. Second, the chapter reviews the literature which considers the topic of organisational resilience, the organisational resilience in SMEs and the issue of organisational resilience in tourism businesses. Third, the chapter moves to the topic of psychological capital, and reviews the psychological capital literature in order to discuss the basic concepts of psychological capital and the four components of psychological capital with their implications in the workplace. Last but not least, the chapter reviews the intersections between psychological capital, natural disasters and organisational resilience to discuss the gaps in the literature that can be filled by this study.

## **2.2 Natural disaster**

Scholars argue that it is hard to define disasters precisely and universally (McFarlane & Norris, 2006; Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008; Shaluf, Ahmadun, & Mat Said, 2003). This thesis will adopt the definition of a disaster from McFarlane and Norris (2006), who define it as “a potentially traumatic event that is collectively experienced, has an acute onset, and is time delimited; disasters may be attributed to natural, technological, or human causes” (p. 4). Drawing from this conclusion, as supported by Norris et al. (2008), it is reasonable to believe that there is a distinction between disaster and natural disaster, as disaster includes: (i) acts of nature; (ii) large industrial, transportation, and nuclear accidents; and (iii) episodes of mass violence, for example, terrorist attacks. Natural disaster is defined as a sudden or progressive natural event that can severely affect a community, and results in the community taking exceptional measures (Carter, 1991). Drawing from the definitions of these two terms, it is reasonable to conclude that disaster is a broader concept, with natural disaster being a sub-category of it. In addition, for the purpose of this study, it is crucial to distinguish between natural hazard and natural disaster as well (Hall et al., 2016). To address the difference in a simple manner, a natural hazard refers to a “geophysical, atmospheric or hydrological event” that can potentially cause harm and damage (Benson, Twigg, & Rossetto, 2007, p. 126). On the other hand, when the potential of the natural hazard to cause loss and harm actually happens, the circumstance can be defined as a natural disaster, and a natural disaster is more a function of vulnerable people and systems than the severity of a natural hazard (Hall et al., 2016; Hall et al., 2018). Unfortunately, organisations generally have little control over unexpected events, especially natural disasters. For the purpose of this study, the following section reviews the literature concerning natural disasters and their impacts on the tourism business sector.

### **2.2.1 Natural disaster and tourism business**

The literature has suggested that natural disasters such as tsunami (e.g., Biggs et al., 2012; Henderson, 2007; Tanaka, 2009), earthquake (e.g., Chew & Jahari, 2014; Huang & Min, 2002; Orchiston, 2012; Tsai & Chen, 2010; Tsai & Chen, 2011), volcanic eruption (e.g., Hall, 2010), climate change (e.g., Becken, 2005; Beniston, 2012), forest fire (e.g., Hystad & Keller, 2006; Hystad & Keller, 2008) and flood (e.g., Kellens, Zaalberg, Neutens, Vanneuville, & de

Maeyer, 2011; Mitchell, 2003) have caused different levels of damages to both tourism destinations and local tourism businesses. First, Faulkner (2001) argues that tourism, as an area of human activity, is prone and vulnerable to disasters like any other sector. In addition, tourism businesses are exposed to a high level of risk due to the unpredictable and unavoidable nature of some natural disasters. Second, not only do natural disasters cause human casualty and damage to infrastructure in tourism destinations, the recovery process of the tourism sector is considerably slower in the post-disaster period (Becken, 2005; Orchiston, 2012). Third, to make matters worse, both domestic and international tourists will have a higher level of perceived risk related to a post-disaster tourism destination, which may result in a dramatic decline in revisit numbers and a negative destination image (Chew & Jahari, 2014; Huang & Min, 2002). Fourth, the research conducted on the tourism industry suggests that proactive disaster planning practices within the industry are minimal, and generally more prepared businesses are in a more advantageous and competitive position when facing natural disasters (Hystad & Keller, 2006; Hystad & Keller, 2008). To conclude, Orchiston (2013) states that natural disasters not only cause prolonged reduction in visitation, damage to critical infrastructure and negative media attention to the tourism destinations, they also bring negative effects to the tourism industry for a long period of time.

Based on empirical evidence, scholars have proposed various potential disaster management strategies and models to enhance disaster preparedness as well as the ability to cope with natural disasters for the tourism sector. For example, Faulkner (2001) proposes a generic tourism disaster management framework which identifies the disaster management responses as well as the principal ingredients of the disaster management strategies that tourism businesses should employ in five distinct phases, namely, pre-event phase, prodromal phase, emergency phase, intermediate phase and long-term or recovery phase. The relevant disaster management strategies in different time phases include risk assessment, contingency plan generation, ongoing review of organisational structures and personnel, ongoing evaluation of changes in environment, etc. In addition, Faulkner (2001) also identifies the prerequisites of effective disaster management planning for tourism businesses, and these are made up of the establishment of a tourism disaster management team, a consultative process of disaster planning, commitment and involvement from all parties involved in the disaster management process, a prior assessment of the community's capability to cope with different types of disasters, media and monitoring activities, a warning system and flexibility. Based on the fact that Taiwan is exposed to a high frequency of natural disasters, Tsai and Chen (2010) suggest



a rapid natural disaster risk assessment model for tourism businesses, which aims at enhancing disaster preparedness, as well as the capability to generate appropriate responding systems for tourism businesses.

Substantial tourism research focuses on the economic and financial crisis, but fewer papers explicitly focus on the negative environmental impacts on tourism businesses (Hall, 2010). In addition, scholars argue that tourism destinations all over the world face the possibility of experiencing disasters at some point in time, while tourism businesses generally lack preparedness and proper disaster management capabilities (Cioccio & Michael, 2007; Faulkner, 2001; Henderson, 2007; Hystad & Keller, 2008; Orchiston, 2013). Prideaux, Laws, and Faulkner (2003) find that current forecast methods are unable to cope with unexpected disasters. Furthermore, Faulkner (2001) suggests that even though crises can be avoided to some degree through sound management, it is the strategy that enables the organisation to cope with unexpected future events that matters most in turbulence.

### **2.2.2 The impact of earthquakes**

Among all the natural disasters, an earthquake makes a distinct case on this topic because it is described as a no-escape natural disaster and is extremely unpredictable (Orchiston, 2012; Tsai & Chen, 2010). Earthquakes can cause large casualties (e.g., Roy, Shah, Patel, & Coughlin, 2002), huge damage to infrastructure (e.g., Orchiston, 2012, Roy et al., 2002), a slow recovery process (e.g., Huang & Min, 2002), and PTSD and the psychological distress of individuals (Fan et al., 2011; Sumer, Karanci, Berument, & Gunes, 2005). Moreover, earthquakes are considered to be the most catastrophic events that cause huge damage to tourism destinations and the tourism industry (Huan, Beaman, & Shelby, 2004; Huang & Min, 2002; Faulkner, 2001). Orchiston and Higham (2016) distinguish earthquakes and their aftershock sequences from other one-off events, such as a hurricane and a tornado, and suggest that aftershocks can continue to pose a safety risk and aggregated damage in the destinations, resulting in anxiety and fear for both residents and tourists for a prolonged period. The detailed research findings in the literature considering the impact of earthquakes is further discussed in the following paragraphs.

First, it is suggested by Bruneau et al. (2003) that earthquakes can result in high losses and extensive community disruption. Looking back to the 20<sup>th</sup> century, earthquakes have produced 28 of the 65 greatest disasters and have caused 450,000 deaths (Lindell & Prater, 2003; Noji, 1997). When it comes to the 21<sup>st</sup> century, it is reasonable to say that earthquakes have occurred with high frequency in different locations during a short time period. The 2010 Haiti earthquake caused more than 230,000 deaths and left 250,000 injured (Lebel et al., 2011). The 2004 Indian Ocean earthquake (Mw 9.3) and the following huge tsunami severely damaged many countries around the Indian Ocean, and claimed more than 200,000 lives in the area (Satake, 2014; Yeh et al., 2007). The 2008 Sichuan earthquake in China caused around 70,000 casualties, 374,171 injured and 184,671 listed as missing (Yang, Wang, & Chen, 2011). One hundred and eighty-five people died because of the 2011 Christchurch earthquake in New Zealand (Hall et al., 2016). Second, apart from the huge casualties caused by severe earthquakes in this century, infrastructure is directly damaged by them. For example, Yang et al. (2011) report that infrastructure such as the water supply, highways, gas and power system were completely destroyed by the 2008 Sichuan earthquake and the total economic loss has exceeded \$200 billion. In addition, huge damage to the houses and buildings due to the earthquake caused millions of people to become homeless. In 2004, a great number of roads, port facilities, drainage systems, communication networks, fuel supplies and water supplies have been disrupted by the earthquake and the following tsunami in the Indian Ocean (Ghobarah, Saatcioglu, & Nistor, 2006). The 2010-2011 Christchurch earthquake sequence in New Zealand resulted in major infrastructure damage and a loss of over 70% of buildings in Christchurch's CBD (Hall et al., 2016). Third, it is also important to mention that the negative impact that earthquakes pose on individual wellbeing is significant. The Canterbury Earthquake Recovery Authority (CERA) (2014) offered a report on the Canterbury wellbeing index after the 2010-2011 Christchurch earthquake sequence, which shows that 45% of the respondents reported additional financial burdens resulting from the earthquakes. These burdens include replacing damaged items, additional housing costs, and supporting family members who have also suffered the earthquakes (CERA, 2014). Fourth, it is crucial to review the impacts of earthquakes on the psychological aspects of individuals. The literature stream has shown that some people exposed PTSD symptoms after the earthquake (e.g., Fan et al., 2011; Foa, Johnson, Feeny, & Treadwell, 2001). Previous studies have shown that both adolescents and adults suffer from PTSD symptoms such as intrusive recollections of the trauma and nightmares, depression and anxiety after experiencing a severe earthquake (e.g., Fan et al., 2011; Goenjian et al., 2005; McNally, Bryant, & Ehlers,

2003; van Griensven et al., 2006). Hall et al. (2016) also suggest that the 2010-2011 Christchurch earthquake sequence had significantly affected the mental wellbeing of local residents.

In addition, the tourism industry in tourism destinations is directly impacted by earthquakes, because they have caused negative and drastic impacts on the number of inbound tourism arrivals (Mazzocchi & Montini, 2001; Wang, 2009; Yang et al., 2011). For example, Sichuan, the first province in China where tourism revenue constituted over 8% of the regional GDP, was damaged by a huge earthquake in 2008. As with all other industries, the tourism industry was significantly impacted by the earthquake, not only because of the damage in tourism destinations but also the negative impacts on tourists' psychological, economic and behavioural intents (Yang et al., 2011). It is also surprising to see that local tourism businesses in New Zealand, a country faced with high seismic risk, generally lack earthquake preparedness and actual planning strategies (Orchiston, 2013). As a result, the local tourism industry suffered significant losses due to the 2010-2011 Canterbury earthquake sequence (Hall et al., 2016; Orchiston, Seville, & Vargo, 2014). In addition, as noted already, a quarter of jobs in the Kaikoura District are in the tourism sector and 34.1% of the GDP in the district comes from the international tourism spend (MBIE, 2017). However, in the two months after the 2016 Kaikoura earthquake, tourism expenditure from both domestic and international tourists in the district went down by NZ\$21 million, with international spending dropping to zero for the first five weeks following the earthquake.

Following the research topic and the research interest of this study, the section below reviews the impacts of natural disasters on a special type of business, SMEs.

### **2.2.3 Natural disasters and SMEs**

Divergent viewpoints have shown that it is hard to reach an agreement in defining a business purely by its size. For example, the European Commission (n.d.) defines micro-sized businesses as businesses with fewer than 10 employees, small-sized businesses as businesses with fewer than 50 employees, and medium-sized businesses as businesses with fewer than 250 employees. However, SMEs are defined as businesses with fewer than 19 employees in New Zealand, and count for 97% of all businesses (Ministry of Economic Development,

2011). The conflict among criteria for defining businesses is further explained by Ayyagari, Beck and Demircuc-Kunt (2007), who suggest that efforts to compile data on the size of the SME sector have been plagued by problems of consistency and comparability due to national differences. An SME may be defined as an enterprise with less than 250 employees in a specific country, while the cut-off number can be different in another country.

Scholars argue that the research of how larger firms deal with the impact of natural disasters outweighs the research on small businesses, and they call for more attention to the nexus of crisis management and small businesses (de Vries & Hamilton, 2016; Herbane, 2010). The research focusing on the impact of natural disasters on SMEs in recent years generally shows that SMEs, being one significant component of local economies, are vulnerable to and strongly impacted by natural disasters and are mostly ill prepared for the recovery (e.g., Cioccio & Michael, 2007; Johnston et al., 2007; Runyan, 2006; Spillan & Hough, 2003; Yoshida & Deyle, 2005). More importantly, scholars argue that SMEs, which count for a great proportion of New Zealand's economy, are generally more vulnerable to changes and interruptions (Chang-Richards et al., 2013). Also, when it comes to the tourism sector, the study on the behaviour of New Zealand tourism businesses shows that especially the small tourism businesses in the country generally lack preparedness and feasible planning in the face of unexpected natural disasters (Orchiston, 2012). The following paragraph presents two parallel examples selected from the literature stream, and shows the different research results considering the performance of SMEs in the face of natural disasters.

de Vries and Hamilton (2016) conducted research on eight owners of Christchurch SMEs in 2014, just three years after the 2011 Christchurch earthquake. They found that although four businesses were trading with lower sales turnover when compared with the pre-disaster financial year, the other four businesses were trading with higher sales levels relative to those before the earthquake. In addition, the entrepreneurs showed positive attitudes towards the recovery, and most of them perceived the disaster as a catalyst for changing the existing business model. The study on the 1994 Northridge earthquake in the Los Angeles, which is the closest parallel to the 2011 Christchurch earthquake in New Zealand, however, has shown that among the 39,000 businesses impacted by the natural disaster, smaller businesses were in the worst-off group in terms of their business states (de Vries & Hamilton, 2016; Tierney, 1997). It is reasonable to say that the differences among the cases are partly due to different research designs. For example, first, the Northridge earthquake research was conducted 16

months after the disaster, while the Christchurch earthquake research was conducted three years after the disaster. Second, the difference between sample size may have also added to the differences between the cases. However, it is important to mention that specific factors such as the characteristics of SMEs and the entrepreneurs, the different business environments, the different supports received from local government, and the different recovery speeds of infrastructure such as roads and water supply, may to some degree result in divergent outcomes. More importantly, with time going by, SMEs in different geographical locations may show increasing capabilities to cope with and recover from unexpected natural disasters, and a number of factors associated with how SMEs actually react in the face of natural disasters are yet to be discovered.

#### **2.2.4 Natural disasters and tourism SMEs**

When it comes to the tourism industry, the research conducted on the impact of natural disasters on tourism SMEs is also comparably scarce, and relatively fewer attention has been given to how this mainstay of the industry actually manages the impacts of natural disasters (Cioccio & Michael, 2007). This section highlights representative examples of the research that has been done on tourism SMEs in the face of natural disasters.

Given the vulnerability of SMEs, on one hand, some scholars argue that tourism SMEs are in general more vulnerable to natural disasters when compared to larger organisations. For example, Johnston et al. (2007) argue that although the levels of staff training and disaster preparedness in tourism businesses are generally very low, larger tourism business operators outweigh their smaller counterparts by having pre-existing orientation and general training programmes. On the other hand, it is inspiring to see that a number of studies have shown that tourism SMEs have the ability to cope with natural disasters through distinct approaches when compared with larger organisations. Among the recent studies investigating how tourism SMEs suffer, react and rebound from natural disasters, Cioccio and Michael (2007) raise the voice for conducting research into how small tourism businesses actually deal with the impacts of a regional disaster. From studying the case of the 2003 bushfires in northeast Victoria in Australia, they conclude that this natural disaster has caused over 1,000 small tourism businesses to end up without a revenue base. However, the researchers also find that although small tourism businesses were vulnerable to natural disasters, they eventually

gained resilience through accumulated experience, which enabled them to recover from the disaster (Cioccio & Michael, 2007). Biggs et al. (2012) focus on the recovery of reef tourism businesses in Thailand, and find that informal reef tourism enterprises (mostly small in size, found by entrepreneurs and provide the majority of the cash income of a family who owns the business) generally feel more confident about their financial conditions after natural disasters than formal enterprises. These enterprises have reported higher levels of social capital than formal enterprises. In addition, the owners of small-scale informal tourism enterprises are also likely to have other livelihood strategies, especially after experiencing an unexpected natural disaster (Biggs et al., 2012). Formal reef tourism enterprises have more employees than informal reef tourism enterprises, and reported that the three most important survival factors after the 2004 tsunami were commitment, past savings and cutting costs. The three most important survival factors reported by informal reef tourism enterprises were commitment, support from government and NGOs and the ability to rely on a second source of income. The research result presented by Biggs et al. (2012) provides empirical implications for studying tourism SMEs, as it has shown a significant difference between how informal, small-sized tourism businesses and formal, larger tourism businesses cope with and recover from natural disasters.

When thinking of the New Zealand context, the issue concerning the vulnerability of local tourism SMEs is of great importance. The tourism industry in New Zealand is the largest export industry in terms of foreign exchange earnings, and SMEs still dominate all industries in this country (Stats NZ, 2016; Tourism New Zealand, 2016). In addition, New Zealand is a country faced with a high risk of natural disasters, especially earthquakes. It is a geologically active country, with the South Island being transected by a huge plate interface whose position is marked by the Alpine Fault (Orchiston, 2013). The Alpine Fault has a long palaeoseismic history, which involves large M7.8-8.0 earthquakes approximately every 300 years, and scholars have also defined the recurrence of the earthquakes within this geographical area as near-regular (Berryman et al., 2012; Orchiston, 2013). It seems inevitable for New Zealand tourism SMEs to learn to always prepare, plan and react properly when earthquakes occur.

Concluding from the discussion in this part of the chapter, natural disasters, especially earthquakes, can cause huge damage to local people, tourism destinations and local businesses. Given this fact, business survival becomes a crucial task. How do local

businesses, and within the scope of this thesis, local tourism SMEs, bounce back or even transcend to a higher level after experiencing natural disasters? This question leads the discussion to the following section.

## **2.3 Organisational resilience**

### **2.3.1 The concept**

Resilience as a concept emerged from ecological science in the 1960s and early 1970s through studies of ecological stability theory, and is defined as the ability of a system to maintain and adapt structure and function, and maintain its identity when faced with disturbances and changes (Biggs et al., 2012; Folke, 2006; Gunderson & Holling, 2001; Holling, 1973). The concept of social resilience appears to be closely linked to ecological resilience, and refers to “the circumstances under which individuals and social groups adapt to environmental change” (Adger, 2000, p. 347). It is clear that the resilience of a social system is related to the resilience of the broader ecological system because of the interdependence between them (Adger, 2000). Thus, social resilience is defined by Adger (2000) as the ability of communities or groups to withstand external stresses and disturbances due to social, political and environmental changes. Social resilience is a complex concept because it also includes two or more alternative stable states, which indicates that it is difficult to precisely locate the threshold between different states (Adger, 2000; Biggs et al., 2012). For this reason, scholars argue that once the threshold shifts to another state, it becomes really tricky and even impossible to bounce back to the earlier state (Biggs et al., 2012; Walker, Holling, Carpenter, & Kinzig, 2004). Resilience as a term has been used in a wide variety of fields such as psychology (Luthans et al., 2007; Masten, 2001), the socio-ecological system (e.g., Adger, 2000; Gunderson & Holling, 2001), strategic management (e.g., Hamel & Valikangas, 2003) and engineering (e.g., Cimellaro & Piqué, 2016; Cimellaro, Reinhorn, & Bruneau, 2010). Based on the various applications of the resilience concept in different fields, Bhamra, Dani, and Burnard (2011) argue that although the context of the term may change in different disciplines, the resilience concept has a relative integral and universal meaning that closely relates to “the capability and ability of an element to return to a stable state after a disruption” (p. 5376). Carpenter, Walker, Anderies and Abel (2001) suggest that researchers should specify which system configurations and disturbances are of interest before studying resilience in a specific discipline.

Biggs et al. (2012) propose that it is possible for an enterprise to shift from solvency to insolvency, or from one core business activity to another. An enterprise can be seen as an individual player in the broader socio-ecological environment. As a result, it is reasonable to propose that the concept of enterprise resilience and organisational resilience can take the same path as social and ecological resilience, because an organisation can be seen as a system that is continuously seeking adaptation in an ever-changing environment (Biggs et al., 2012; Burnard & Bhamra, 2011). The research on organisational resilience has been blooming in recent years. Various definitions of resilience in an organisational context exist. For example, when defining in a strategic manner, organisational resilience refers to the ability to reinvent business strategies in the face of changes, to continuously be aware of and adjust to changes, and to proactively react before the need for a change becomes obvious (Hamel & Valikangas, 2003). Organisational resilience can also be seen as an emergent organisational system that enables the adaptive capacity during changes. From this point of view, organisational resilience has the capacity to improve organisational awareness, reduce vulnerabilities to risky environments and restore efficacy after the disruption, as proposed by Burnard and Bhamra (2011). This viewpoint is also supported by Gibson and Tarrant (2010), who propose that the term resilience goes beyond just bouncing back, but is more broadly concerned with adaptive capacity in the long run. In addition, Gibson and Tarrant (2010) state that it is the fundamental understanding and treatment of non-routine and disruption-related risks that constitute the basis of organisational resilience.

### **2.3.2 Organisational resilience models**

As various definitions of organisational resilience are proposed by different scholars, the measurement and models of organisational resilience differ too. For example, Weick and Sutcliffe (2001) established the four-category model for assessing organisational resilience, which includes resourcefulness, technical, organisational and rapidity. Cutter et al. (2008) propose the disaster resilience of place (DROP) approach for improving disaster resilience at the local and community level. Based on the fact that the term resilience is defined in different manners and some mismatches exist in the resilience literature, Gibson and Tarrant (2010) present several conceptual models for organisational resilience, and introduce the principles model of resilience, which provides a guiding foundation for investigating



organisational resilience and resilience in other disciplines. The principles model of resilience emphasises that it is the interaction among various resilience capabilities in a changing context that actually determines and leads to organisational resilience. However, some researchers have studied organisational resilience with the assumption that various resilience factors such as situation awareness, vulnerability management and adaptive capacity directly lead to organisational resilience (e.g., McManus, 2008; Stephenson, 2010). A recent measurement of organisational resilience, the Benchmark Resilience Tool (BRT-53), is suitable for most of the organisations in different sizes and industry sectors and is developed in the New Zealand context (Whitman, Kachali, Roger, Vargo, & Seville, 2013). The Benchmark Resilience Tool highlights 13 indicators of organisational resilience, namely, proactive posture, recovery priorities, planning strategies, participation in exercises, external resources and effective partnerships, situation awareness, internal resources, staff engagement and involvement, silo mentality, information and knowledge, leadership, innovation and creativity, and decision making (Whitman et al., 2013). The first five indicators are categorised under one factor called “planning”, and the following eight indicators are categorised under the second factor, “adaptive capacity”. However, Resilient Organisations (2017) categorises these 13 indicators under three interdependent attributes, “leadership and culture”, “networks and relationships” and “change ready”. According to Resilient Organisations (2017), these three attributes can effectively build business as usual (BAU).

### **2.3.3 The 13 indicators of organisational resilience**

In this section, the 13 indicators of organisational resilience will be discussed, as this is the model of organisational resilience adopted in this study. The basis for the 13 indicators for organisational resilience is McManus’s (2008) original work, which introduces three attributes of organisational resilience, namely, vulnerability management, adaptive capacity and situation awareness. The original qualitative research by McManus (2008) is completed using the Grounded Theory approach through semi-structured interviews with 10 case study organisations in New Zealand. McManus (2008) aims to identify the generic aspects of organisational resilience, which can contribute to the resilience of organisations, irrespective of their nature, size, location and industry type. Thus, it is reasonable to assume that McManus’s (2008) original model and theory provide a guiding opinion to this study. In

general, McManus (2008, p. 5) provides organisational resilience with the following definition:

*“Resilience is a function of an organisation’s situation awareness, identification and management of keystone vulnerabilities and adaptive capacity in a complex, dynamic and interconnected environment”.*

As a result, McManus (2008) includes 15 indicators in the original model, with five indicators under each of the three organisational resilience attributes, situation awareness, keystone vulnerability and adaptive capacity. Table 1 below is extracted from the original thesis of McManus (2008), highlighting each attribute and each indicator of organisational resilience.

Table 1 - McManus's Attributes and Indicators of Organisational Resilience (McManus, 2008, p. 134)

Attribute	Resilience Indicator		Description
Situation Awareness	Roles & Responsibilities	SA <sub>1</sub>	Awareness of roles and responsibilities of staff internally in an organisation and the roles and responsibilities of the organisation to its community of stakeholders
	Hazards & Consequences	SA <sub>2</sub>	Awareness of the range of hazard types and their consequences (positive and negative) that the organisation may be exposed to.
	Connectivity Awareness	SA <sub>3</sub>	Awareness of the links between the organisation and its entire community of stakeholders, internally (staff) and externally (customers, local authorities, consultants, competitors etc.)
	Insurance	SA <sub>4</sub>	Awareness of the obligations and limitations in relation to business interruption insurance and other insurance packages that the organisation may have or have available.
	Recovery Priorities	SA <sub>5</sub>	Awareness of the minimum operations requirements and the priorities involved in meeting those requirements, together with expectations of key stakeholders.
Keystone Vulnerabilities	Planning	KV <sub>1</sub>	The extent to which the organisation has participated in planning activities including risk management, business continuity and emergency management planning.
	Exercises	KV <sub>2</sub>	The extent to which the organisation has been involved in external emergency exercises or created exercises internally for staff and stakeholders.
	Internal Resources	KV <sub>3</sub>	The capability and capacity of physical, human and process related resources to meet expected minimum operating requirements in a crisis. Includes economic strengths, succession and structural integrity of buildings.
	External Resources	KV <sub>4</sub>	The expectations of the organisation for the availability and effectiveness of external resources to assist the organisation in a crisis.
	Connectivity	KV <sub>5</sub>	The extent to which the organisation has become involved with other critical organisation to ensure the availability of expertise and resources in the event of a crisis.
Adaptive Capacity	Silo Mentality Management	AC <sub>1</sub>	The degree to which the organisation experiences the negative impacts of silo mentality and the occurrence of strategies in place for mitigating them.
	Communications & Relationships	AC <sub>2</sub>	The effectiveness of communication pathways and relationships with all stakeholders, both internally and externally in day-to-day and crisis situations.
	Strategic Vision	AC <sub>3</sub>	The extent to which the organisation has developed a strategic vision for the future operations and the degree to which that is successfully articulated through the organisation.
	Information & Knowledge	AC <sub>4</sub>	The degree to which information and knowledge is acquired, retained and transferred throughout the organisation and between linked organisations.
	Leadership & Management	AC <sub>5</sub>	The degree to which leadership and management encourage flexibility and creativity in the organisation and how successful decision making is in times of crisis.

McManus's (2008) work has been the starting point for Stephenson (2010) and others (e.g., Lee et al., 2013) to develop and test a modified organisational resilience measurement and benchmarking tool. McManus's (2008) model is also the basis for this study, and the work by

Stephenson (2010) provides a modified and detailed guideline for this study. Based on McManus (2008), Stephenson (2010) first adjusts the original model through a mini-workshop and a further literature review. As a result, the upgraded model of organisational resilience consists of four dimensions, namely, resilience ethos, situation awareness, management of keystone vulnerabilities, and adaptive capacity. Twenty-three indicators for organisational resilience, including the original 15 indicators from McManus's (2008) research, are identified. The adjusted model consists of eight new indicators, namely, commitment to resilience, network perspective, internal and external situation monitoring and reporting, informed decision making, robust processes for identifying and analysing vulnerabilities, staff engagement and involvement, innovation and creativity, and devolved and responsive decision making. After testing the adjusted model, Stephenson (2010) provides and introduces the new model of organisational resilience based on the '2-Factor Solution', which finally identifies and retains two dimensions and 13 indicators of organisational resilience. The two dimensions of organisational resilience in the new model are adaptive capacity and planning. The two dimensions of organisational resilience thus provide the detailed theoretical basis for this study. The following Table 2 highlights the new model of organisational resilience proposed by Stephenson (2010), and the detailed definition for each indicator under these two newly-formed dimensions is provided after the table.

Table 2 - New model of organisational resilience (Stephenson, 2010, p. 174)

<b>Organisational resilience factors</b>	
<b>Adaptive capacity</b>	<b>Planning</b>
Minimisation of silo mentality	Planning strategies
Capability & Capacity of internal resources	Participation in exercises
Staff engagement & involvement	Proactive posture
Information & knowledge	Capability & capacity of external resources
Leadership, management & governance structures	Recovery priorities
Innovation & creativity	
Devolved & responsive decision making	
Internal & external situation monitoring & reporting	

## **Adaptive capacity**

### **Minimisation of silo mentality**

Silo mentality is one of the original organisational resilience indicators under the attribute of adaptive capacity in McManus's (2008) work, and is retained and reworded by Stephenson (2010) as the minimisation of silo mentality in the new model of organisational resilience. According to Stephenson (2010), the minimisation of silo mentality refers to:

*"...Minimisation of divisive social, cultural and behavioural barriers, which are often manifested as communication barriers creating disjointed, disconnected and detrimental ways of working."* (p. 176)

### **Capability and capacity of internal resources**

Being one of McManus's (2008) original indicators under the management of keystone vulnerabilities, the capability and capacity of internal resources is also retained by Stephenson (2010) in the new model of organisational resilience. However, this indicator is categorised into the dimension of adaptive capacity during the factor analysis by Stephenson (2010). The researcher also provides the capability and capacity of internal resources with the following definition:

*"...The management and mobilisation of the organisation's resources to ensure its ability to operate during business as usual, as well as being able to provide the extra capacity required during a crisis."* (p. 177)

### **Staff engagement and involvement**

After conducting the factor analysis, Stephenson (2010) then retains two of the three items in McManus's (2008) original indicator of staff engagement and involvement, and places the newly-formed staff engagement and involvement indicator under the dimension of adaptive capacity in the new organisational resilience model. This indicator of adaptive capacity is defined as:

*"...The engagement and involvement of staff who understand the link between their own work, the organisation's resilience, and its long term success and are able to use their skills to solve problems."* (p. 178)

### Information and knowledge

Stephenson (2010) then retains three original items and adds two new items into the information and knowledge indicator proposed by McManus (2008). The newly-formed information and knowledge indicator is also categorised under adaptive capacity in the new model of organisational resilience. Information and knowledge as one indicator of organisational resilience requires that:

*“...Critical information is stored in a number of formats and locations and staff have access to expert opinions when needed. Roles are shared and staff are trained so that someone will always be able to fill key roles.” (p. 179)*

### Leadership, management and governance structures

Leadership, management and governance structures was also one of McManus's (2008) original indicators of organisational resilience under the dimension of adaptive capacity. In Stephenson's (2010) work, all five items from McManus's (2008) original indicator are retained. This indicator in the new model is defined by Stephenson (2010) as:

*“...Strong crisis leadership to provide good management and decision making during times of crisis, as well as continuous evaluation of strategies and work programs against organisational goals.” (p. 180)*

### Innovation and creativity

Innovation and creativity is a new indicator proposed by Stephenson (2010), which was not included in McManus's (2008) original model of organisational resilience, and it requires that:

*“...Staff are encouraged and rewarded for using their knowledge in novel ways to solve new and existing problems, and for utilising innovative and creative approaches to developing solutions.” (p. 181)*

### Devolved and responsive decision making

Devolved and responsive decision making is another indicator included in Stephenson's (2010) adjusted model of organisational resilience. This indicator is also categorised under the dimension of adaptive capacity. Devolved and responsive decision making refers to:

*“...Staff have the appropriate authority to make decisions related to their work and authority is clearly delegated to enable a crisis response. Highly skilled staff are involved in making decisions where their specific knowledge adds significant value, or where their involvement will aid implementation.” (p. 181)*

#### Internal and external situation monitoring and reporting

Internal and external situation monitoring and reporting is another new indicator in Stephenson’s (2010) adjusted model of organisational resilience. This indicator is then pulled under the dimension of adaptive capacity in Stephenson’s (2010) new model. Stephenson (2010) defines this indicator as:

*“...Staff are encouraged to be vigilant about the organisation, its performance and potential problems. The organisation has a culture which values learning from past problems and staff are able to report information that might help the organisation to improve.” (p. 182)*

### **Planning**

#### Planning strategies

Instead of categorising planning strategies under management of keystone vulnerabilities, Stephenson (2010) pulls this indicator under the planning dimension in the new model of organisational resilience, retaining and introducing two dimensions, adaptive capacity and planning in the 2-Factor solution. Drawing from Stephenson (2010), this indicator is defined as:

*“...The development and evaluation of plans and strategies to manage risks and vulnerabilities in relation to continuous changes in the organisation’s environment and its stakeholders.” (p. 184)*

#### Participation in exercises

The next indicator proposed by Stephenson (2010) under planning is participation in exercises. According to McManus, this indicator is originally one indicator of management of

keystone vulnerabilities as well. In the new 2-Factor model, participation in exercises is defined by Stephenson (2010) as:

*“...The participation of staff in simulations or scenarios designed to practice response arrangements and validate plans.” (p. 184)*

#### Proactive posture

The next indicator under the dimension of planning in the new model, proactive posture, is not included in either McManus’s (2008) original model of organisational resilience or the adjusted model proposed by Stephenson (2010) after the mini-workshop and the comprehensive literature review. This new indicator in the new model proposed by Stephenson (2010) suggests:

*“...A strategic and behavioural readiness to respond to early warning signals of change in the organisation’s internal and external environment before they escalate into crisis.” (p. 186)*

#### Capability and capacity of external resources

The next indicator of organisational resilience under planning, proposed by Stephenson (2010) in the new model, highlights that in order to be resilient, one organisation should ensure the access to relying on the relationships and resources needed from other organisations during crisis. The detailed definition for capability and capacity of external resources is:

*“...An understanding of the relationships and resources the organisation might need to access from other organisations during a crisis, and planning and management to ensure this access.” (p. 186)*

#### Recovery priorities

The last indicator proposed by Stephenson (2010), recovery priorities, is one of McManus’s (2008) original indicators of situation awareness. In the new model of organisational resilience, this indicator is grouped under the dimension of planning. This indicator is defined by Stephenson (2010) as the following:



*“...An organisation wide awareness of what the organisation’s priorities would be following a crisis, clearly defined at the organisation level, as well as an understanding of the organisation’s minimum operating requirements.” (p. 187)*

Drawing from Lee et al. (2013) and Orchiston et al. (2016), the new model for measuring organisational resilience suggests two dimensions of organisational resilience, planned and adaptive. According to Orchiston et al. (2016), planned resilience requires the organisation to use existing and predetermined planning capabilities, while the adaptive resilience emerges during crisis, and is enhanced by strong organisational culture and sound leadership. Lee et al. (2013) find that these two dimensions identified are not surprising, because they reflect the central issue of the literature of crisis management and resilience, anticipation versus resilience, and planning versus adaptation. The same viewpoint is supported by Nilakant et al. (2014), who illustrate that resilience consists of two dimensions, planned resilience and adaptive resilience. Planned resilience as an organisational capability requires the organisations to have predetermined plans, and is mostly found in pre-disaster activities. While adaptive resilience emerges during post-disaster period when organisations have to come up with contingent plans in respond to unexpected situations (Nilakant et al., 2014). Given this 2-Factor solution, the previous studies provide organisations with the opportunity to identify which approach, planned or adaptive, they inherently favour (Lee et al., 2013). As a consequence, this approach can be used in further research to identify how an organisation can become more resilient in the time of crisis. However, although the generic tools developed by McManus (2008) and Stephenson (2010) discussed in this section are theoretically applicable throughout different industries, it is still important to notice that SMEs may take a different path when compared to other larger organisations in terms of how they usually invest in and demonstrate the function of organisational resilience.

#### **2.3.4 SME resilience**

Natural disasters, like other crisis and disasters, can potentially pose unpredictable and severe threats to the continuity of an organisation’s operation (Bhamra et al., 2011). It is crucial to ensure that organisations know how to rebound or bounce back from adversities. Guided by the general research question of this study, the researcher believes that in order to find and integrate what has been done in the previous research concerning organisational resilience

and tourism SMEs, it is helpful to begin with reviewing what has been done on the resilience of general SMEs. Then the discussion will move to the resilience of tourism businesses, and then the intersection of the two topics will be discovered. When it comes to SMEs, traditionally studies of large organisations made up a huge proportion for organisational resilience research (Sullivan-Taylor & Branicki, 2011). However, according to Ates and Bititci (2011), there is an urgent need to study the resilience of SMEs since they count for more than 70% of the worldwide production. It is interesting to find that there is a growing need for conducting research and advising SMEs about the importance of building organisational resilience (e.g., Ates & Bititci, 2011; Bhamra et al., 2011; Gunasekaran, Rai, & Griffin, 2011; Pal, Torstensson, & Mattila, 2014; Sullivan-Taylor & Branicki, 2011). Drawing from the literature, first, Sullivan-Taylor and Branicki (2011) find that the SMEs studied in their research show distinctive approaches to building organisational resilience when compared to larger organisations. The authors take Weick and Sutcliffe's (2001) four category framework which includes resourcefulness (the ability of managers to identify problems, establish priorities and mobilise resources), technical (when faced with extreme stress, the ability of managers to ensure a high level of organisational performance), organisational (the preparedness of managers to make decisions and take actions to reduce negative impacts brought about by extreme events) and rapidity (the decision making of managers without undue delay) to assess the resilience of SMEs in the UK. The result shows that although SMEs generally lack the ability to identify problems and mobilise resources due to resource constraints, they have shown their own paths to cope with extreme events by: (i) focusing on supply and infrastructure; (ii) depending on interorganisational connections; (iii) "muddling through" obstacles and questioning taking action (p. 6); and (iv) taking rapid action and showing high flexibility. The result of Sullivan-Taylor and Branicki's (2011) study resonates well with the propositions by other scholars stating that SMEs are more flexible with changes, more comfortable to do rapid execution, and more effective in communicating across organisational boundaries (Burnard & Bhamra, 2011, Antony, Kumar, & Labib, 2008). Second, Ates and Bititci (2011) conclude that the characteristics impacting an SME in change management and organisational resilience include a "firefighting approach to solve day-to-day problems" and an entrepreneurial orientation (p. 5603). A firefighting approach suggests that SMEs are more likely to generate adaptive resilience instead of having planned business strategies. This finding resonates well with the implication of the 2-Factor solution for organisational resilience discussed in the previous section. The entrepreneurial orientation does not merely mean that SMEs are mostly owned and managed by

entrepreneurs; it also reveals the fact that some SMEs are quicker to react to changes (Ates & Bititci, 2011). Next, the literature review explores the resilience of tourism businesses.

### **2.3.5 Resilience of tourism businesses**

Organisational resilience as a topic has been found extremely popular among scholars who study the New Zealand context. A variety of studies can be found focusing on studying the resilience of different businesses and communities in New Zealand (e.g., Chang-Richards et al., 2013; McManus, 2008; Orchiston, 2013; Stephenson, Vargo, & Seville, 2010; Vargo & Seville, 2011; Whitman et al., 2013). Until recently, organisational resilience and enterprise resilience research have focused on disaster management, as well as the organisational reactivity of the tourism sector facing environmental changes and natural disasters (e.g., Adger, 2006; Biggs et al., 2012; Cutter et al., 2008; Nelson, Adger, & Brown, 2007; Orchiston, 2012; Orchiston, 2013). The resilience concept is considered essentially useful for understanding how tourism businesses can positively and effectively respond and adapt to increasing changes and turbulences (Biggs et al., 2012; Tyrrell & Johnston, 2008). The studies by Biggs (2011) and Biggs et al. (2012) incorporate social capital, human capital and lifestyle benefits into tourism organisational resilience research, and the resilience factors identified in these two papers are of great importance to small-scale informal tourism businesses, which are mostly founded by entrepreneurs. Drawing from the literature, a few studies have focused on the resilience of national businesses against natural disasters. For example, according to Chang-Richards et al. (2013), over the last several decades, New Zealand has implemented regulations and policies aimed at enhancing organisational resilience in the face of frequent natural disasters. Orchiston (2013) studies the SMEs in the Alpine Fault and concludes that although they are aware of the likelihood of a future earthquake, they generally lack a deep understanding of the business preparedness and the consequences that a huge earthquake may bring to their business. Although being operated in a geographical area with a high seismic risk, the tourism SMEs in New Zealand lack feasible planning strategies, which eventually results in inadequate organisational resilience in the face of natural disasters. However, Orchiston (2013) points out that this issue is potentially due to the increased insurance premium after a sequence of natural disasters occurred in 2011, such as the earthquakes in Tōhoku, Japan and Christchurch, New Zealand. As a result, the small tourism businesses in the Southern Alps are found to be significantly less willing to

insure their businesses. Nevertheless, it is concluded by scholars that comparably very few studies have focused on the effect of earthquakes on organisations (Whitman et al., 2014), and it is reasonable to conclude that the increasing research interest of this specific issue in New Zealand is somehow due to the relative frequent earthquake occurrence and the severe post-disaster consequences (e.g., Orchiston, 2013; Stevenson et al., 2014).

Hall et al. (2018) emphasise that from 2000 to 2016, almost half of the papers relating to tourism and resilience have focused on the economic aspects of tourism, and the next most significant areas relate to communities, policy and planning, and sustainable development. This highlights that limited research has been conducted connecting the issues of crisis, disaster and security in tourism with the resilience literature. Moreover, when incorporating the ‘resilience’ concept in the tourism study, inadequate studies examine actual organisations, enterprises, destinations, individuals as well as entrepreneurs; rather, most of the researcher focuses on the communities and regions (Biggs et al., 2012; Hall et al., 2018). Organisations and individuals are all important players in this ever-changing ecological system. Human capital is the most important part of an organization, regardless of size and scale, especially when thinking about SMEs. With fewer employees in the business, the entrepreneur or the owner-operator becomes essentially important in an SME. The following section aims to discuss and discover whether a relatively new approach considering human capital within an organisation can positively contribute to organisational resilience.

## **2.4 Psychological capital**

### **2.4.1 What is psychological capital?**

It has been increasingly important for organisations today to attract and lock in human talent. However, attracting and managing talent for superior organisational performance has become more difficult due to the free flow of information, increasing intense competition and the upcoming retirement of millions of baby boomers (Luthans et al., 2007). Thus, scholars who advocate the “war-for-talent” perspective hold the viewpoint that companies are hungry for human talent and devote themselves to the intense competition of talented human capital (Michaels, Handfield-Jones, & Axelrod, 2001). However, Luthans et al. (2007) argue that there is a need for a new approach, which moves beyond the negative by-product of a war perspective such as burnout, disengagement and employee stress. More importantly, a new

approach should be established to keep pace with the changing environment. Drawing from positive psychology and positive organisational behaviour theory, scholars believe that psychological capital can generate competitive advantages for organisations when properly invested, leveraged, developed and managed (Luthans et al., 2007).

Broadly, psychological capital is defined as an individual's positive state of development (Luthans et al., 2007). Given this nature, investing in psychological capital is also investing in positivity. When thinking in an organisational context, the psychological capital approach is based on the fact that most organisations today are not discovering the full potential of their human resource, thus neither investing in nor developing them (Avolio, 2005; Luthans et al., 2007). Psychological capital is proposed as a positive, unique and durable approach, which moves beyond the traditional organisational behaviour and human resource management fields. The main topics of psychological capital research have been focusing on the relationships between psychological capital and individual performance, competitive advantage edge, employee satisfaction, organisational behaviour, wages, turnover and stress (Avey, Luthans, & Jensen, 2009; Avey, Reichard, Luthans, & Mhatre, 2011; Avey, Wersning, & Luthans, 2008; Goldsmith, Veum, & Darity, 1997; Luthans & Youssef, 2004). In addition, research has demonstrated that psychological capital is positively related to organisational outcomes and team performance (Dawkins, Martin, Scott, & Sanderson, 2013; Peterson & Zhang, 2011; Youssef & Luthans, 2012).

Psychological capital components have been identified as self-efficacy, hope, optimism and psychological resilience (Luthans et al., 2007). First, self-efficacy refers to the ability of an individual to positively execute courses of action to deal with potential situations (Bandura, 1982). Second, hope is defined as "the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways" (Snyder, 2002, p. 249). Third, focusing more broadly on the expected quality of future outcomes when compared with hope (Bryant & Cvengros, 2004), Carver et al. (2010) argue that optimism refers to holding positive expectations for the future. Last but not least, psychological resilience, as a new capacity recognised in positive organisational behaviour research, is the positive psychological capacity for an individual to rebound, or bounce back from, adverse situations (Luthans, 2002). Interestingly, Youssef and Luthans (2007) suggest that hope, optimism and psychological resilience especially meet the inclusion criteria of positive organisational behaviour (POB) such as positivity, valid measurement and open to

development, and are considered to have applicable impacts on organisational performance. However, these three crucial topics have been overlooked by researchers. Another similarity among these three constructs is found in the leadership literature, which suggest that hope, optimism and resilience are the crucial characteristics of an authentic leader (Avolio & Gardner, 2005; Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Luthans, Norman, & Hughes, 2006).

Table 3 summarises the number of psychological capital studies with related topics from 1997 to 2017 in the Scopus database (accessed May 2017). The table is derived with the key searching term being psychological capital, and the inclusion criteria being academic journals, conference proceedings, books and book series. As discussed above, although each of the criteria-meeting components (self-efficacy, hope, optimism and psychological resilience) has a relatively longer research history, it is reasonable to conclude that psychological capital is a newly-emerged topic which did not catch the attention of scholars until 20 years ago. Drawing from Table 3, traditional psychological capital research investigates the relationships between psychological capital and wages, as well as psychological capital and welfare. With time going by, the research of psychological capital involves an increasing number of related topics such as organisational performance, entrepreneurship, corporate social responsibility, individual wellbeing, education, cultural and gender differences, and post-disaster recovery. Among these topics, the rising research interest in cultural differences is possibly due to the requirement of globalisation and the associated development of multinational enterprises (MNEs). In addition, the research interest between psychological capital and post-disaster recovery may also have practical implications for disaster-affected countries, for example, New Zealand. Psychological capital research reached a peak in 2015 and 2016. However, compared with other research topics, the number of psychological capital studies (total number 426) is still relatively limited.

The next section will discuss the four components of psychological capital, namely, self-efficacy, optimism, hope and psychological resilience. In addition, the current issues in the literature concerning the applications and implications of each psychological capital component in the workplace will be reviewed as well.

Table 3 - Literature on psychological capital and related topics in Scopus database 1997-2017

Year	Topic																			
	Total Number	Wage	Welfare	Human Capital	Leadership	Theory Development	Performance	Organisational Learning	POB	Entrepreneurship	HRM	Education	Engagement	Satisfaction	Well-being	CSR	Social Work	Cultural Difference	Gender Difference	Disaster Recovery
2017	27				5	2	6		1			1	2	3	7					
2016	78				7	2	18	3	1	4		9	6	3	22				3	
2015	81				5	2	15		3	1		9	9	14	23					
2014	63				10	7	10		1	3	2	6	1	4	13			4	1	1
2013	40		1		4	5	7		2	2		2	3		14					
2012	42		1		6	3	13		2		1	1	1		12			1	1	
2011	32				7		9	2	2	1		1	2	1	6			1		
2010	19				4		6		1		1		2	1	4					
2009	16	1			4	2		1			1	2		2	1	1	1			
2008	12				2	2	3		2		2	1								
2007	7				1	2	1		2	1										
2006	3						2													
2005	2				1		1													
2004	2			2																
2003	1		1																	
2002																				
2001																				
2000																				
1999																				
1998																				
1997	1	1																		
Total	426	2	3	2	57	27	91	6	17	12	7	32	26	28	102	1	1	6	5	1

Note: Accessed May 2017.

## **2.4.2 Self-efficacy**

To begin with, the first component of psychological capital is self-efficacy. The concept of self-efficacy emerged from social learning theory (Bandura, 1977; Gist, 1987). Three dimensions of self-efficacy were identified as magnitude, generality and strength (Bandura, 1977). Magnitude refers to the individual's perceived degree of task difficulty that he or she can attain. Generality stands for the degree to which the individual's expectation of efficacy is generalised under different circumstances. Strength is closely related to the magnitude dimension, and refers to whether the conviction of efficacy magnitude is strong or not (Gist, 1987). Apart from the definition discussed in section 2.4.1, Bandura (1997) suggests that the possibility that people estimate what they can take on for a particular task can be regarded as an estimate of their individual self-efficacy. In addition, several questions can be asked in advance before looking into this concept, such as "Do you believe in yourself?", "Do you know that you have what it takes to be successful?" and "Do you believe it is all within you?" (Luthans et al., 2007, p. 33). Looking into the history of self-efficacy research, an interesting yet crucial viewpoint is found. According to Luthans et al. (2007), the terms "self-efficacy" and "confidence" are mostly interchangeable among some scholars. What's more, it seems that some scholars have also regarded self-efficacy as confidence as they define the concept as "the important confidence component" (Luthans et al., 2007, p. 34). Research on self-efficacy has supported a high correlation between the construct and subsequent performance (Gist, 1987).

### **2.4.2.1 Self-efficacy in the workplace**

The relationship between self-efficacy and work performance is well established in the literature. First, Luthans et al. (2007) suggest that when combined and integrated, individual efficacy will result in organisational collective efficacy. Second, scholars have studied self-efficacy and job performance and found positive correlations between these two concepts (e.g., Locke, Frederick, Lee, & Bobko, 1984; Luthans, Avolio, Walumbwa, & Li, 2005; Potosky & Ramakrishna, 2002; Tierney & Farmer, 2002). Third, self-efficacy has been found to indirectly, while positively, influence activity engagement (Salanova, Llorens, & Schaufeli, 2011). Fourth, studies can be found discussing the issue of self-efficacy from a leadership perspective (e.g., Chemers, Watson, & May, 2000; Gong, Huang, & Farh, 2009). Fifth, the



study of self-efficacy is also found in many entrepreneurship studies (e.g., Boyd & Vozikis, 1994; Chandler & Jansen, 1997; Chen, Greene, & Crick, 1998; Luthans & Ibrayeva, 2006). Among the issues raised above, several important viewpoints are now discussed in detail. Locke et al. (1984) find that self-efficacy remains a very strong predictor of future performance, given the fact that it is more strongly related to experience and past performance. In addition, Gong et al. (2009) demonstrate the mediating effect of employee creative self-efficacy on the positive relationship between employee creativity and transformational leadership. Last but not least, within the domain of self-efficacy and the related issues in workplace, disproportionate interests are found with regard to developing countries rather than developed countries.

Apart from discussing the self-efficacy of employees, it is also crucial to discuss the self-efficacy of entrepreneurs and business owners when thinking about the SME context. Paglis and Green (2002) propose the concept of leadership self-efficacy (LSE), and suggest that it refers to the ability of a leader who has demonstrated enough self-efficacy to successfully exert leadership by setting direction, gaining commitments from their followers, and overcoming obstacles. Entrepreneurial self-efficacy (ESE) is one of the entrepreneur's personal attributes, which is considered by scholars as an extremely important antecedent to venture intentions (McGee, Peterson, Mueller, & Sequeira, 2009). Some previous studies show that ESE is positively related to the intention of setting up one's own business, and distinguishes entrepreneurs from average business managers (e.g., Chen et al., 1998; Utsch, Rauch, Rothfuss, & Frese, 1999). The self-efficacy of entrepreneurs is also found to have a higher score than the self-efficacy of other non-entrepreneurs (e.g., Markman, Baron, & Balkin, 2005). In addition, the self-efficacy of entrepreneurs is found to directly contribute to the venture's performance (e.g., Baum & Locke, 2004; Baum, Locke, & Smith, 2001). Last but not least, concluding from Bullough and Renko's (2013) point of view, an entrepreneur's self-efficacy, which is explained as the belief in their personal ability to effectively influence entrepreneurial processes and positively manage adverse situations, can also impact on the psychological resilience of the entrepreneur.

### 2.4.3 Optimism

The next component of psychological capital, optimism, is defined by Tiger (1979) as “a mood or attitude associated with an expectation about the social or material future – one which the evaluator regards as socially desirable, to his or her advantage, or for his or her pleasure” (p. 18). Divergent viewpoints about optimism exist among scholars. First, the traditional optimism literature views optimism as dispositional, illusional and misleading (Scheier & Carver, 1987; Taylor, Kemeny, Bower, Gruenewald, & Reed, 2000; Tiger, 1979). However, Luthans et al. (2007) believe that a more state-like and developmental criterion for psychological optimism should be adopted to guide the research in relevant fields. Second, some researchers tend to separate emotion and motivation from optimism as outcomes, while Carver and Scheier (1990), and Peterson (2000), agree that optimism possesses inherent emotional and motivational components rather than simply being a cognitive characteristic of people. Optimism as a psychological capital component not only means optimistically predicting a promising future; it also means recognising and explaining the reasons and causes of the possible outcomes in an optimistic explanatory manner (Luthans et al., 2007). Moreover, based on Seligman’s (1992) definitional framework of optimism, scholars argue that optimists take credit for the positive happenstances in their life events, regard the causes of the desirable events as being within one’s control, and believe that such causes are applicable across other life situations. When negative and undesirable events happen, optimism stands for attributing the causes to be external, specific and temporary, and remaining confident and optimistic towards the future (Luthans et al., 2007).

However, studies have shown that optimism can be controversial and has side effects under some circumstances. Scholars argue that over-optimistic people may expose themselves to higher risks (Luthans et al., 2007), because they usually underestimate potential risks behind events. Weinstein (1989) agrees that substantial optimistic biases exist and will eventually result in personal risks. Optimism is also considered to be dispositional when optimistic people blindly believe that only good things will flourish in the upcoming future (Peterson & Chang, 2002; Scheier & Carver, 1992). Davidson and Prkachin (1997) have studied unrealistic optimism, and conclude that it can lead to increased risk and decreased motivation of engagement.

### **2.4.3.1 Optimism in the workplace**

When it comes to the employees, first, Luthans et al. (2007) believe that optimistic employees will attribute positive moments, for example, when receiving positive recognition and feedback from their team leader to their daily work ethic. It is reasonable to argue that optimistic employees who possess positive emotions will successfully transfer optimism into their working emotion, and positively influence their work performance. Second, Luthans et al. (2007) point out that not only do optimistic employees keep the organisation staying on top of its value-based strategies in turbulent times, but they also may be able to embrace and benefit from the changes. This viewpoint is further supported by Avey et al. (2008), who believe that even when faced with negative changes, optimistic employees will remain motivated because they believe that the failure has nothing to do with anything inherent in them and will perseveringly work for another opportunity. Third, optimism can directly and indirectly predict employee creativity (Rego, Sousa, Marques, & Cunha, 2012).

The role of optimism becomes equally important when it comes to the leadership literature. First, optimistic leaders are better at enhancing productivity and facilitating employee engagement (Arakawa & Greenberg, 2007). Second, Peterson, Walumbwa, Byron, and Myrowitz (2008) conclude that optimism positively relates to transformational leadership ratings, which mediates the relationship between optimism and organisational performance. However, the debate between the authenticity of pessimistic and optimistic leaders has caught attention after a series of negative events such as the dot-com bubble burst and the 9/11 tragedy (Luthans et al., 2007). Because of unexpected and sudden changes, some advocates of pessimistic leadership believe that optimistic leaders lack preparation for future events, and favour “sadder-but-wiser” leaders. Although being challenged, the advocates for optimistic leadership still believe that optimism is a beneficial characteristic which contributes to authentic leadership and organisational performance. For example, Luthans et al. (2007) disagree with the pessimistic leadership viewpoint and suggest that optimism forms the basis for realistic and authentic leaders who dare to dream and dare to face changes. What’s more, optimism is closely related to the self-awareness, self-regulation, adaptation, responsiveness and self-development of leaders (Luthans et al., 2007). The first two terms, self-awareness and self-regulation, are also found to be important components of leadership emotional intelligence, which will in turn contribute to transformational leadership in the face

of opportunities and challenges (Goleman, 2003; Lindebaum & Cartwright, 2010; Mathew & Gupta, 2015).

Optimism is considered to be one crucial personal trait of entrepreneurs and SME owner-managers. Generally, the extent to which they are optimistic and how their optimism affects their business is subject to different business phases. On one hand, some scholars believe that optimism is one of the necessary and sufficient conditions that enables venture creation (e.g., Casson, 2005; Trevelyan, 2008). From this point of view, the literature suggests that the competition for limited resources forces entrepreneurs to gamble on their optimism. The more optimistic the entrepreneur is, the more they will pay for the resources that may be otherwise taken by others (Casson, 2005). On the other hand, some studies suggest that SME owner-managers and entrepreneurs are often more highly optimistic than other people, which may not result in beneficial performance outcomes after starting the venture (e.g., Price, Rae, & Cini, 2013; Trevelyan, 2008; Ucbasaran, Westhead, Wright, & Flores, 2010; Westhead & Wright, 2011). Trevelyan (2008) argues that although optimism can be beneficial for entrepreneurial intention, it becomes harmful for decision making in response to setbacks. It is believed by Ucbasaran et al. (2010) that entrepreneurs are a group of people who have a greater tendency to be over-optimistic than non-entrepreneurs. They also suggest that entrepreneurs are suffering from “optimism bias”, and will temper their over-optimism in subsequent ventures by utilising previous entrepreneurial experiences (p. 554). The study by Ucbasaran et al. (2010) also shows that entrepreneurs who have experienced business closure and failure are less likely to be over-optimistic, not only because that they are more likely to believe that negative events will reoccur in the future, but also because that failure has taught them a lesson and encouraged them to improve business strategies accordingly.

#### **2.4.4 Hope**

The discussion now proceeds to the third component of psychological capital, hope. Hope is defined as “the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways” (Snyder, 2002, p. 249). Three terms are considered crucial in the definition of hope, namely, goal, pathway and agency. Goal is the guiding assumption and cognitive component of hope theory (Snyder, 2002; Snyder, Irving, & Anderson, 1991). From the previous research of Snyder et al. (1991), it can be inferred that

extremely difficult goals are inapplicable and unattainable. However, Snyder (2002) challenges the original viewpoint and finds that high-hope people occasionally change failure situations to reach the impossible. Pathway refers to planning to meet goals, or the means and objective to carry out the willpower of hope (Luthans et al., 2007; Snyder et al., 1991). Pathway is also considered to be positively related to the degree of hope. In other words, Snyder (2002) concludes that high-hope people are more decisive and certain than low-hope people, and will more easily come up with alternative pathways to reach goals. In addition, the pathway component of hope separates psychological capital hope from the daily use of the term and other psychological capital constructs such as self-efficacy, optimism and resilience, which leads to the discriminative validity of hope (Luthans et al., 2007; Moon & Snyder, 2000; Snyder, 2002). Agency, defined as the goal-directed energy, stands for the motivational component in hope theory and is considered to be the self-determination of completing a specific goal (Snyder, 2002; Snyder et al., 1991; Snyder, Lapointe, Crowson, & Early, 1998). Scholars believe that the interaction between agency and pathway is a crucial part in hope theory. For example, it is argued that the “goal-directed energy” agency helps people form the bridge between motivation and the best alternative pathway (Snyder, 2002). And, in turn, Luthans et al. (2007) suggest that the creativity and innovation involved in forming new pathways enhances the upward spiral and motivational hope agency.

#### **2.4.4.1 Hope in the workplace**

In general, the literature has shown that hope is positively related to workplace performance, organisational commitment, job satisfaction and positive organisational behaviour (Luthans, 2002; Luthans, Luthans, & Luthans, 2004; Luthans et al., 2007; Youssef & Luthans, 2007). As with optimism, hope in the workplace will also be discussed from three perspectives, the employee perspective, the leader perspective and the entrepreneurship perspective.

First, from the employee’s perspective, Youssef and Luthans (2007) find that hope, as with other psychological capital components, is related to and contributes a unique variance to work outcomes. Second, Luthans et al. (2007) introduce several successful approaches in developing hope among employees such as goal setting, goal stretching, facilitating involvement and training. Developing hope in employee training helps them set goals and generate realistic pathways in the workplace. Third, hope is found to have played a mediating

role in facilitating the positive relationship between a supportive organisational climate and employee outcome (Luthans, Norman, Avolio, & Avey, 2008). What's more, evidence can be found in the literature supporting the positive relationships between hope and employee job satisfaction and employee commitment (e.g., Avey et al., 2011; Youssef & Luthans, 2007).

Hope is also a crucial topic in terms of leadership. After reviewing the paper of Luthans et al. (2007), it becomes clear that hopeful organisational leaders and managers are crucial to the survival and growth of organisations in the face of environmental changes and turmoil. In addition, the authors call for both theoretical and practical changes to traditional hope theory in order to search for sufficient and inimitable organisational hope, which can be transformed into enduring competitive advantages. Luthans et al. (2007) also suggest that hopeful leaders possess specific characteristics such as self-awareness, self-regulation, self-verification and self-development, which are in line with the characteristics of authentic leaders as suggested by some studies (e.g., Avolio & Gardner, 2005; Luthans et al., 2006). What's more, the authentic leadership process ensures a win-win position between leaders and followers, and enhances the follower's sense of agency and pathway thinking (Luthans et al., 2007).

Given the fact that hope has been found to be a buffer against distress, and enables individuals to possess the capacity to deal with sudden tragic loss, Hmieleski and Carr (2008) propose that hope should be considered important in the entrepreneurship context. This is because setting goals and planning, creating alternative pathways to reach the desired goals, and reacting positively to the unexpected and surprises are crucial factors for an entrepreneur to succeed. It is also found by scholars that hope at least partly leads to a relatively low level of stress perceived by entrepreneurs, for the reason that the ability to imagine multiple pathways to overcome difficulties can reduce work-related stress (Baron, Franklin, & Hmieleski, 2016).

### **2.4.5 Psychological resilience**

Now the literature review moves to the last component of psychological capital, psychological resilience. In its early stage, psychological resilience research had focused on the negative aspects of life events, and the research stems from studying high-risk young people and dysfunctional families (Luthans et al., 2007; Masten, 2001; Richardson, 2002;

Werner & Smith, 1992). Richardson (2002) believes that, historically, the research of resilience can be concluded to be in three waves. The first wave of the research focuses on the specific characteristics that people possess as resilient (e.g., Aroian & Norris, 2000; Christiansen, Christiansen, & Howard, 1997; Garmezy, 1991; Garmezy, Masten, & Tellegen, 1984). The second wave of the research aims at studying the process of obtaining such resilient characteristics (e.g., Bouhours & Bryer, 2004; Compas, Hinden, & Gerhardt, 1995; Kumpfer, 2002). The third wave of the research focuses on the motivational aspect of resilience, which is beneficial for generating personal strength for everyone (Richardson, 2002). Luthans et al. (2007) support Richardson's viewpoint, and suggest that modern positive psychologists have shifted towards studying the everyday skills and strengths that can be identified, managed and used by people of all ages and psychological conditions. Most importantly, Luthans (2002) expands the traditional resilience theory, and provides a good contemporary psychological definition of psychological resilience. According to Luthans (2002), psychological resilience refers to the ability to "rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility" (Luthans, 2002, p. 702). This definition expands the traditional definition of resilience from a psychosocial perspective and developmental perspective (Rutter, 1987; Masten, 2001). It also emphasises the importance of bouncing back even from positivities. In addition, psychological resilience requires the ability of people to transcend the equilibrium (Luthans, 2002).

Hall et al. (2018) conclude three main perspectives on the psychological resilience of individuals in the psychology literature, namely, trait-based, process-based and outcome-based perspective. The trait-based perspective regards resilience as an inborn human trait, the process-based perspective assumes that resilience can be developed and managed by individuals, while the outcome-based perspective suggests that resilience is actually an outcome rather than a process. It is found that scholars tend to have different views about the scope and definition of "resilience". For example, Wanberg and Banas (2000) believe that resilience is a composite term that includes other positive capabilities, for example, optimism. However, some scholars argue that psychological resilience as a psychological capital component is distinct from other three components, and has both a reactive and proactive nature (Luthans et al., 2007). The supporting viewpoint can be found in Youssef and Luthans's (2007) paper, and in Reivich and Shatte's (2003) book, which suggest that psychological resilience differs from other constructs because: (i) it takes both proactive and

reactive measures in the face of adversity, thus allowing the individual to both rebound and grow beyond the equilibrium point; (ii) the proactive nature of psychological resilience is the crucial characteristic that allows resilience to be distinctive, which stands for the ability to overcome, bounce back and further pursue new knowledge and meaning in life; and (iii) it combines assets and risk factors in an interactive pattern, and goes beyond the additive sum of an individual's assets and risk factors. This viewpoint is also supported by de Vries and Shields (2006), who conclude that instead of being a specific characteristic or trait, psychological resilience consists of a set of ongoing behaviours and is asserted to be an amalgamation of four personal qualities, namely, flexibility, motivation, perseverance and optimism.

#### **2.4.5.1 Psychological resilience in the workplace**

In today's research, psychology resilience has been closely related to workplace issues (Avey et al., 2008; McDonald, Jackson, Vickers, & Wilkes, 2016; Luthans et al., 2007; Pipe et al., 2012; Youssef & Luthans, 2007). For example, first, Luthans et al. (2007) point out that attention has been given to inevitable negative factors in the workplace instead of negative life events in today's research. Among these negative workplace factors, the research of psychological resilience not only focuses on absolute events such as downsizing, firing and promotion failure, but also more subtle ones such as ignorance of colleagues and workplace discrimination (Luthans et al., 2007). Second, Luthans et al. (2007) also suggest that research has been conducted on the relationship between psychological resilience and positive workplace events, which is in congruence with the previous discussion in terms of the movement of resilience research. Third, employee psychological resilience is found to be positively related to both job performance and work happiness, as suggested by Youssef and Luthans (2007). Fourth, psychological capital constructs including psychological resilience are found to have a positive relationship with positive emotions, which act as a mediator between psychological capital and employee behaviours (Avey et al., 2008). Last but not least, the research of psychological resilience has gone into the healthcare field and shows that the working environment of a healthcare workplace can be improved through enhancing the psychological resilience of employees (McDonald et al., 2016; Pipe et al., 2012).



Being a crucial psychological capital component, scholars argue that psychological resilience is developable in the workplace (Luthans, 2002; Luthans et al., 2007). For example, Jackson, Firtko and Edenborough (2007) argue that nurses can participate in the development and strengthening of individual resilience, which will eventually contribute to reducing personal vulnerability, as well as improving the overall healthcare setting. In addition, Masten, Cutuli, Herbers, and Reed (2012) agree with the developable nature of psychological resilience, and suggest that personal resilience development in the workplace should focus on reducing risk, building resilience strengths and utilising effective adaption processes.

When it comes to entrepreneurship, first, de Vries and Shields (2006) believe that resilience results from personal life experiences rather than being an inborn personality trait, and use the concept of resilience in the study of entrepreneurial sustainability. The authors find that flexibility, motivation reflected in self-efficacy, perseverance when faced with adversity, and optimism, which refers to a positive outlook about failure, are factors that positively contribute to entrepreneurial resilience among New Zealand SME owners. The entrepreneurial resilience thus positively contributes to the long-term sustainability of SMEs. Second, Bullough and Renko (2013) reckon that psychological resilience is important to entrepreneurs in times of adversity, because this psychological trait helps entrepreneurs adapt to unexpected changes more rapidly. To support the viewpoint, Bullough and Renko (2013) present the example of William Wang, who utilises his entrepreneurial resilience to overcome the 2002 doc-com bubble and adapt quickly to the new technological environment by introducing a brand new flat-screen television, instead of closing down his enterprise. Additionally, as discussed in section 2.4.2.1, the research by Bullough and Renko demonstrates that the combination of self-efficacy and psychological resilience provides individuals with more entrepreneurial power, especially under severe conditions. Third, Ayala and Manzano (2014) investigate whether a connection exists between three specific dimensions of psychological resilience and entrepreneurial success in the tourism sector. The study result shows that hardiness, resourcefulness and optimism are three dimensions of psychological resilience which have predicting power on the success of entrepreneurs. The result also shows that psychological resilience can be seen as a real growth strategy for entrepreneurs.

## **2.5 Psychological capital and coping mechanisms**

After reviewing the literature of psychological capital and its four components, it appears that another interesting topic associated with psychological capital and psychological wellbeing is coping mechanisms. It seems that coping is closely related to psychological capital. For example, self-efficacy itself can serve the function of a coping mechanism, especially when combined with other coping mechanisms (e.g., Chang & Edwards, 2015; Zhao, Lei, He, Gu, & Li, 2015). When it comes to hope, plenty of studies have been conducted to investigate the relationship between hope and different coping strategies (e.g., Stanton, Danoff-burg, & Huggins, 2002; Thornton et al., 2014). Some other researchers, for example, Korner (1970) suggest that hope itself can be viewed as a coping method. Drawing from the literature, the relationships between optimism and coping mechanisms has caught even more attention among scholars. For instance, several studies have focused on the different coping mechanisms used by people who have demonstrated different levels of optimism (e.g., Gaudreau, Gunnell, Hoar, Thompson, & Lelievre, 2015; Scheier, Weintraub, & Carver, 1986). Some studies have investigated the specific coping strategies associated with optimism (e.g., Hanssen et al., 2015; Lee & Mason, 2015; Wrosch, Jobin, & Scheier, 2017). When it comes to resilience, the connection between this psychological capital component and coping mechanisms seems to be even stronger. As Avey et al. (2008) address, bouncing back is at the core of this psychological capital component, which requires people to positively cope with and adapt to significant changes. Therefore, coping seems to be closely related to psychological resilience as well. It is not then surprising to see that a great number of previous studies have shown the mediating role of coping mechanisms in the relationship between psychological capital and workplace performance (e.g., Ding et al., 2015; Rabenu, Yaniv, & Elizur, 2017).

Based on the psychology literature, there are broadly two ways of coping, problem-focused and emotion-focused. According to Scheier et al. (1986), problem-focused coping refers to the action to remove or circumvent the source of the stress. Emotion-focused coping, on the other hand, refers to first removing the emotional distress associated with the event or situation. More importantly, people often choose to use problem-focused coping when they perceive that the stressful situation can be overcome, while use emotion-focused coping when they believe that the stressor is enduring (Scheier et al., 1986). Scheier et al. (1986) also find

through their research that optimists are more likely to focus on the problem, while pessimists are more likely to focus on the negative emotions. Other psychologists, for example, Baker and Berenbaum (2007), believed that emotion-focused coping serves an adaptive function in the coping process, and that the role of emotion is essential in the coping process. Drawing from the literature, problem-focused coping involves individuals taking corrective actions to improve or solve the situation eliciting emotion (Prayag, 2016). The mostly identified emotion-focused coping mechanisms are denial, avoidance, focusing on emotions, emotion venting, seeking out social support and positive reinterpretation (Baker & Berenbaum, 2007). When thinking about the entrepreneurship literature, one interesting finding of Singh, Corner, and Pavlovich (2007) highlights that entrepreneurs are active in coping with challenges and even entrepreneurial failures. More importantly, according to their research, problem-focused coping mechanisms are more often used by entrepreneurs to deal with the economic aspects of life. This means that entrepreneurs in the research often use their network to find alternative livelihoods when their venture fails, engage in legal actions to be released from debt, and seek financial help from their family members. However, when it comes to the other aspects of life influenced by challenge and failure, for example, social and psychological aspects, these entrepreneurs tend to use emotion-focused coping mechanisms such as avoidance, denial and emotional venting.

After reviewing the literature of psychological capital and its four components, and the literature of various coping mechanisms, this chapter will then discuss the relationship between psychological capital and natural disaster in section 2.6. In addition, the three main topics of this study, namely, psychological capital, natural disaster and organisational resilience, will be discussed together in section 2.7.

## **2.6 Psychological capital and natural disasters**

When linking with natural disasters, a great number of studies have been conducted to investigate post-traumatic psychological symptoms as well as what can be done to positively moderate and mitigate such symptoms (e.g., Karanci & Rustemli, 1995; Lowe, Sampson, Gruebner, & Galea, 2015; Nolen-Hoeksema & Morrow, 1991; Wind, Fordham, & Komproe, 2011; Wulff, Donato, & Lurie, 2015). In other words, the research has been mainly focused on the effect that natural disasters cause on individual psychological wellbeing rather than

studying the casual relationship the other way around. In particular, very little attention has been paid to the psychological resilience of humans when responding to the consequences of natural disasters (Reich, 2006). Most of the previous studies tend to investigate how natural disasters strengthen or weaken post-disaster psychological resilience and community resilience, instead of studying how the psychological resilience within people strengthens or weakens their ability to recover. Still, a few studies can provide guidance for investigating how psychological capital and its four components enhance or weaken the ability of an individual to recover and bounce back from adverse situations.

Natural disasters not only cause casualty, injury and property destruction, they also bring pervasive and prolonged stressors to people who have experienced the trauma (Benight & Bandura, 2004). First, Bandura (1997) suggests that self-efficacy plays a key role in reacting to stressful situations and coping with threatening situations, and threat is actually the result of the match between perceived coping capabilities and the detrimental aspects of the disaster. Thus, Benight and Bandura (2004) propose that self-efficacy, the first component of psychological capital, has the capacity to mediate PTSD arising from natural disasters. Empirical studies have already proved that under the threat of natural disasters, self-efficacy is positively related to precautionary action and emergency management ability (Grothmann & Reusswig, 2006; Kim et al., 2012); has performed a mediating role towards post-disaster distress (e.g., Benight & Harper, 2002; Benight, Swift, Sanger, Smith, & Zeppelin, 1999; Sumer et al., 2005); and can contribute to post-traumatic growth after natural disasters (e.g., Cieslak et al., 2009). Second, optimism is also found to be a factor that positively contributes to post-disaster recovery. For example, Martinez, Reyes and Solar (2014) show that the interaction of optimism with the severities of the Chile earthquake has to some degree moderated the negative post-traumatic impact and contributed to the prediction of individual wellbeing and post-traumatic growth. Kuijer et al. (2014) suggest that optimism, as one of the pre-trauma variables, is negatively related to the level of PTSD among participants who have experienced two major earthquakes in Canterbury, New Zealand. Third, when considering hope, Crabtree (2013) finds that a lack of hope among the 2008 Kosi River flooding sufferers can lead to post-disaster depression and inadequate psychological resilience. In addition, Vargo and Seville (2011) propose that optimism and hope are essential components of good leadership during a crisis, which may also contribute to the overall resilience of the organisation. The proposition of Vargo and Seville (2011) has also been tested among New Zealand SMEs after natural disasters. Last but not least, psychological resilience, which is an

important component of societal resilience in the face of disasters, is also another crucial factor that positively leads to the recovery of natural disasters (Agani et al., 2010; Ferraro, 2003; Lowe et al., 2015; Rodriguez-Llanes, Vos, & Guha-Sapir, 2013). Reich (2006) suggests that three core principles of psychological resilience are essential for individual recovery in the face of natural disasters, namely, personal control, coherence and connectedness. Personal control enables an individual to have high satisfaction, morale, and lower levels of depression, thus allowing an individual to show remarkable psychological resilience against natural disasters. A sense of coherence enables individuals to have the desire to remove uncertainties, and it also represents an even more fundamental principle of psychological resilience when facing a natural disaster. The last principle of psychological resilience proposed by Reich (2006) is connectedness, which refers to banding together with other people, seeking out other people, and establishing connections even with strangers. It is also found by researchers that resilience varies as a result of time, gender, age and cultural origin (Connor & Zhang, 2006). For example, Seplaki, Goldman, Weinstein, and Lin (2006) found that the elderly are more resilient than the near-elderly when experiencing an earthquake. Rodriguez-Llanes et al. (2013) conclude that females are connected with a lower level of psychological resilience in the face of natural disasters. More importantly, people who have previously experienced natural disasters are found to be more resilient than those who have not should a new natural disaster occur in the future (Ferraro, 2003).

## **2.7 Psychological capital and organisational resilience in the face of natural disasters**

A number of previous studies have incorporated the concept of social capital into disaster management studies (e.g., Biggs et al., 2012; Buckland & Rahman, 1999; Mathbor, 2007; Prasad, Su, Altay, & Tata, 2015); or have incorporated human capital into the studies on the resilience of organisations (e.g., Baral & Stern, 2011; Biggs, 2011; Biggs et al., 2012); or have touched on the relationship between human psychological aspects and disaster management (e.g., Benight & Bandura, 2004; Goenjian et al., 2005; Mahan & Ressler, 2012; Masten & Narayan, 2012; Yang et al., 2011). It is crucial to mention that after reviewing the literature, a central issue is identified that leads to the research topic of this study. Scholars tend to focus on the negative psychological impacts that natural disasters have had on individuals, rather than studying how the positive psychological capital of people can help

them and their organisations rebound or bounce back from natural disasters. Unfortunately, the research on the relationship between psychological capital and organisational resilience in the face of natural disasters is found to be extremely scarce, especially when talking about the tourism business sector, although evidence can be found in some studies that implicitly suggested this research direction. For example, Yang et al. (2011) state that the psychological aspects of both tourists and residents in the earthquake-hit areas should be taken into consideration when studying the recovery process of earthquakes and other natural disasters. The authors argue that the psychological competence of the tourists is one crucial factor that influences their decision-making. And, not surprisingly, according to Yang et al. (2011), among the psychological, economic and behavioural factors of tourists, the psychological factor is mostly impacted by the consequences of earthquake. When it comes to the locals, it becomes more obvious that the psychological impact should be more severe because of personal loss. Another paper by Hmieleski, Carr, and Baron (2015) is found to have the relevant theme as it integrates the human capital, social capital and psychological capital of 223 CEOs in the US, and studies the relationship between these individual intangible resources and organisational performance, both under stable industry conditions and unpredictable changing conditions. The literature has also suggested that human capital can potentially contribute to organisational resilience (Hall et al., 2018). Hall et al. (2018) suggest that the concept of psychological resilience may be to some degree linked with community, as well as tourism system resilience, while the exact relationship regarding this issue is not yet investigated and developed. Because psychological resilience is one of the components of psychological capital, the suggestion from Hall et al. (2018) can also motivate the conduct of this study.

No study has investigated the relationship between psychological capital (self-efficacy, hope, optimism and psychological resilience) and organisational resilience in the face of unexpected changes and turbulences caused by natural disasters. In particular, no study so far has looked at how positive psychological capital can contribute to tourism SME organisational resilience in the face of natural disasters. Concluding from the above literature review, it is reasonable to say that psychological capital can generate competitive advantages for organisations when properly invested, and thus may it have the capacity to contribute to organisational resilience. In addition, the positive psychological capital of business leaders not only enhances individual resilience, but is also likely to enhance the resilience of the organisation. To support the above argument, Vargo and Seville (2011) suggest that the

nature of the leadership is one of the crucial characteristics of resilient organisations, and the leaders in such organisations should demonstrate hope and optimism in order to help their organisations recover from crisis. Self-efficacy can possibly be regarded as one of the prerequisites for gaining both individual resilience and organisational resilience, because it stands for having a belief in one's ability to cope with the difficulties in life. When considering psychological resilience, it is also possible that it may predict organisational resilience, especially when talking about the resilience of owner-managers and entrepreneurs because they are meant to lead the organisation, not only practically but also spiritually. More importantly, after reviewing the literature, it is clear now that the concept of "resilience" in different disciplines shares commonalities such as the ability of bouncing back, the capacity of moving forward to a better state other than bouncing back to the original state, flexibility and reactivity. The previous research on organisational resilience and natural disasters not only provides theoretical guidelines for conducting further research, but also leads to the topic of this study, which incorporates psychological capital in the study of post-disaster organisational resilience. Psychological capital is a new approach that has not been studied along with tourism SME resilience in the post-disaster period, although the possibility of investigating the relationship between these two concepts in a post-disaster context has been found through the literature.

## **2.8 Chapter summary**

This chapter is comprised of reviewing the literature on three main topics, namely, natural disasters, organisational resilience and psychological capital. As each of the topics includes a great number of previous studies, this chapter reviewed previous studies in terms of each one of the main topics, and also provided this study with theoretical supports and instructional examples. After reviewing the literature, one significant gap as well as one new research direction were identified by the researcher. As discussed previously, most of the previous studies have focused on the negative psychological impact that natural disasters can cause to people, while comparably fewer studies have been conducted to learn how positive psychological capital can enhance or weaken the ability for individuals and their organisations to recover from natural disasters. More importantly, combining psychological capital with the emerging issues on organisational resilience, it seems possible to study the relationship between these two topics. Psychological capital is proposed as a new approach to

generate competitive advantage for organisations when properly invested, leveraged, developed and managed, and the organisational resilience can be essentially invested in and enhanced by the people within the business. Therefore, learning from the people who operate the business becomes an interesting and important lesson for contemporary research. With the aim of this current study being investigating the relationship between the psychological capital of SME owners and managers and the resilience of their businesses in post-quake Kaikoura, the gaps and possible research direction identified after reviewing the related literature can provide this study with adequate purposes and inspirations. The next chapter will discuss the research methodology adopted by the researcher in conducting this study.



## **3 Methodology**

### **3.1 Introduction**

The third chapter presents and discusses the research methodology adopted in this study. First, the chapter includes a discussion on the interpretivist research paradigm, and a detailed justification for choosing this paradigm is also discussed. Second, since the raw data collection for this thesis was conducted through semi-structured interviews with 17 owners and managers of tourism SMEs in Kaikoura, the detailed discussion and justification of this data collection procedure are then presented. Third, the discussion then proceeds to the data analysis procedures, which include two steps. The researcher first conducted a thematic analysis on the 17 interview transcriptions to identify the main similarities and differences among the data, from which several themes emerged. Then the researcher followed Polkinghorne's (1995) approach and organised a holistic general narrative story, as well as three individual narrative stories, which were the most representative and theoretically interesting in terms of the research questions asked in this study. The individual narrative stories also provide further interpretation of the data and answers to some of the research questions posed in this study. Fourth, the ethical considerations of this study are discussed. Fifth, this chapter also identifies challenges and potential limitations associated with the research methodology. Finally, some conclusions are drawn at the end of this chapter, highlighting the most important issues concerning the research methodology.

#### **3.1.1 Aims and objectives**

The aim of this research is to investigate how psychological capital and the resilience of tourism SMEs in post-disaster Kaikoura are related. More importantly, this research aims at employing a narrative analysis, a rarely used qualitative research method in both of the fields of psychology and tourism study to shape narrative stories of the tourism SME owners and managers who have been through the Kaikoura earthquakes, and to answer the following research questions.

### **3.1.2 Research question and sub-questions**

#### Main Research Question

**“In what ways does the psychological capital of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?”**

#### Sub Research Questions

- How does the self-efficacy of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?
- How does the hope of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?
- How does the optimism of owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?
- How does the psychological resilience of owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?

### **3.1.3 Interpretivist paradigm**

Before discussing the methodology, it is important to clarify that the researcher adopted an interpretivist perspective in this study. According to Schwandt (1994), the interpretivists have the belief that they must interpret the meaning behind this world in order to understand this world, which means that interpretivist focuses primarily on meaning. The interpretivist assumes that the language and description expressing human actions are the most important parts of social reality. This proposition is most often ignored by the empiricist or positivist position (Leitch et al., 2010; Schwandt, 1994). In addition, the interpretivist assumes that the explanations of social reality should be grounded in people’s self-understanding, as suggested by Leitch et al. (2010). The ontology on which positivism is based is realist, which means that positivists consider observation as theory neutral. Instead, they believe that scientific research identifies law-like generalisations and theories that provide explanations as to what has been observed (Leitch et al., 2010). However, the ontological ground for interpretivism is the life-world, which means that interpretivists value the role of investigation and subjectivism (Leitch et al., 2010). Therefore, the interpretivist approach is about understanding human behaviour by presenting the actual meanings and interpretations that

human (actors) subjectively accredit a specific environment to in order to give an authentic explanation of this behaviour (Johnson, Buehring, Cassell, & Symon, 2006; Leitch et al., 2010). The justifications for adopting an interpretivist perspective in this study are further provided in section 3.1.3.1.

### **3.1.3.1 Justification of the research paradigm**

As explained in the previous section, an interpretivist paradigm values the role of the researcher's interpretation of social reality, rather than relying on objective law-like theories and rules, which exclude the important roles of investigation and interpretation. Also, it can be inferred from section 3.1.3 that an interpretivist paradigm allows the researcher to first observe and present the human actions in a specific environment, and then explain the actual meaning of social reality behind this human action through careful interpretation. In general, instead of fitting the understanding into established law-like theories, the interpretivist paradigm taken in this research enables the researcher to understand the facts emerged from the data in an inductive way. The detailed justification for the interpretivist paradigm taken in this research is discussed in the following paragraph.

First, Leitch et al. (2010) suggest that an interpretivist inquiry provides the researcher with a holistic worldview, encourages the researcher to get close to participants, and facilitates the interpretation process by entering the realities of the participants. Therefore, it is a suitable paradigm for studying the owners and managers of tourism SMEs, and most importantly, for studying those entrepreneurs who have founded their own businesses. The researcher believes that appropriate interpretations can be gained by being involved in their life, discussion and action. Second, natural disasters, especially earthquakes, are unusual events for most people. This means that, for the researcher, a deep and authentic understanding of the real situation experienced by those people who have actually experienced natural disasters should be obtained by getting close to those people and listening to their stories. There are numerous studies that use an interpretivist paradigm when studying natural disasters (e.g., Chamlee-Wright & Storr, 2011; Rehnsfeldt & Arman, 2012., Tseng, Chen, & Tu, 2011). These previous studies also provide the justification for the specific paradigm chosen in this study. Third, the aim of this study is to understand how psychological capital influences organisational resilience in a post-disaster environment. As explained in Chapter 2,

this relationship has not been studied by previous researchers. Because the interpretivist approach is inductive, and does not necessarily rely on previous theoretical framework, the researcher thus finds this paradigm resonates well with the aim of this study. As Rehnsfeldt and Arman (2012) mention, the interpretivist paradigm adopted in the research aims to interpret the issues and questions posed by the data itself, not elsewhere. Fourth, as the researcher intends to employ a narrative analysis as a main research approach in this study, it is then even clearer that an interpretivist paradigm is adopted as narrative analysis is interpretive in nature. Drawing from Polkingshorne (1995), in producing the narrative story and doing the analysis, the researcher is actually expected to draw on their disciplinary expertise to interpret and make sense of the responses and actions collected from the research participants.

## **3.2 Execution of the methodology**

### **3.2.1 Interview questions**

As will be explained in section 3.2.3, the research data was collected through semi-structured interviews and this section will first discuss where the interview questions were adopted from, as well as the nature of those questions. Table 4 below outlines these issues. The detailed interview questions are included in Appendix 7.1.

Table 4 - Where the interview questions were adopted from and the nature of the questions

	Where were the questions adopted from	The aims of the questions
<b>Background of the participants and the businesses</b>	According to Polkinghorne (1995), the embodied nature of the research participants need to be acknowledged by the researcher in order to conduct the narrative analysis. Thus, the questions about the background of the participants and the businesses fulfilled this requirement. In addition, these questions were also prepared based on Bruner's (1991) requirement of attending to the context sensitivity in conducting narrative analysis.	These questions aimed at gaining an overall idea of the similarities and differences among different participants and their businesses. The data gathered from these questions also fulfilled some requirements of the narrative analysis, as proposed by Polkinghorne (1995) and Bruner (1991).
<b>Self-efficacy</b>	The questions for self-efficacy were mainly adopted from the PsyCap Questionnaire (PCQ) (Luthans et al., 2007). The questions were to some degree modified according to the post-disaster context in Kaikoura as well as the other suggestions from Luthans et al. (2007) in their book, "Psychological capital: Developing the human competitive edge".	The questions concerning self-efficacy aimed at gaining a deep understanding of how the research participants have shown the first component of psychological capital before and after the earthquake. More importantly, these questions helped the researcher to identify possible patterns and relationships between self-efficacy and organisational resilience when analysing the data, which was helpful to answer the sub-question 1 of this study.
<b>Hope</b>	The questions for hope were mainly adopted from the PCQ (Luthans et al., 2007). The questions were also to some degree modified according to the post-disaster context in Kaikoura.	The questions for hope aimed at gaining a deep understanding of how the research participants have demonstrated the second component of psychological capital before and after the earthquake. In addition, these questions helped the researcher to identify possible patterns and relationships between hope and organisational resilience when analysing the data. This was helpful for addressing sub-question 2 of this study.

Table 4 continued - Where the interview questions were adopted from and the nature of the questions

<b>Optimism</b>	<p>The questions for hope were partly adopted from the PCQ (Luthans et al., 2007), while modified according to the post-disaster context in Kaikoura. Some of the questions under "optimism" were adopted from the ideas in the book "Psychological capital: Developing the human competitive edge" (Luthans et al., 2007) instead of being adopted directly from the questionnaire, and were also modified according to the post-disaster context in Kaikoura.</p>	<p>The questions under "optimism" aimed at gaining a deep understanding of how the research participants have demonstrated the third component of psychological capital before and after the earthquake. In addition, these questions helped the researcher to identify possible patterns and relationships between optimism and organisational resilience when analysing the data. This was helpful for addressing sub-question 3 of this study.</p>
<b>Psychological resilience</b>	<p>The questions for psychological resilience were adopted from the PCQ and the book chapters discussing psychological resilience (Luthans et al., 2007), and modified according to the Kaikoura context.</p>	<p>The questions concerning psychological resilience aimed at gaining a deep understanding of how the research participants have shown the last component of psychological capital before and after the earthquake. More importantly, these questions helped the researcher to identify possible patterns and relationships between psychological resilience and organisational resilience when analysing the data, which was helpful to answer the sub-question 4 of this study.</p>
<b>Organisational resilience</b>	<p>The questions for organisational resilience were prepared after reading the works by McManus (2008), Stephenson (2010), and Lee et al. (2013).</p>	<p>The questions regarding organisational resilience helped the researcher to understand how the different aspects of organisational resilience (e.g., leadership, staff engagement, decision making, innovation and creativity etc.) were demonstrated. In addition, these questions were helpful for the researcher to answer the main research question as well as the four sub-questions of this study.</p>

### 3.2.2 Sampling

When it comes to the sampling process, the researcher first searched for potential businesses via different business websites. For example, the researcher went to the homepage of ‘Kaikoura i-Site’ and acquired the business websites of some local accommodation businesses and fishing businesses. The inclusion criteria for the participating businesses were simple and straightforward. As long as a business had less than 19 employees and operated in the tourism sector, as well as had been affected by the 2016 Kaikoura earthquake, it was identified as one potential participating business, and the researcher could contact the business owner/manager accordingly. The business owner/manager thus became one of the potential participants. At the beginning, the researcher expected to undertake 25 interviews. Although scholars argue that 12 interviews should suffice when trying to understand common experiences among a group of relatively homogeneous individuals (Guest, Bunce, & Johnson, 2006), the researcher believes that by increasing the sample size, the possible patterns and relationships demonstrated by the data will be more credible. However, the reality in Kaikoura has limited the feasibility of conducting 25 interviews, because a great number of local businesses in Kaikoura have closed after the 2016 Kaikoura earthquake. As a result, the researcher ended up completing 17 individual interviews.

Given that most businesses in Kaikoura are centred around the tourism industry, and most of them are small in business scale, the researcher used purposive sampling and successfully collected the raw research data from 17 owners and managers of local tourism SMEs. Following Tongco’s (2007) suggestion, purposive sampling was chosen in this study because it allowed the researcher to deliberately choose the participants who possessed the knowledge of the 2016 Kaikoura earthquake. During the “Kaikoura Challenge” experience, which was discussed in Chapter 1, the first wave of the potential research participants had been identified. After the “Kaikoura Challenge”, more potential research participants were selected and contacted via email, text messages and phone calls. In addition, in order to increase the sample size, the researcher also proactively asked for the participation of local business managers and owners in a sequence of field trips to Kaikoura from the beginning of September 2017 to the end of October 2017.

The researcher conducted 17 in-depth semi-structured interviews to collect the original data for this study. Table 5 presented below shows the characteristics of the participating

businesses and the participants. As this table shows, 11 participating businesses engaged in accommodation services, seven businesses offered tourism activity services, and four businesses engaged in both accommodation and tourism activity services. Among the 17 participating businesses, three were defined as new businesses, and the other 14 were defined as established businesses in this study. Since some of the participants felt more comfortable in having another person supporting him or her during the interview, there were four interviews conducted on a paired basis. Two interviews were conducted with couples who were the owners of the businesses, one interview was conducted with the business owner and her son, and the other one was conducted with the owner and the general manager of the business. So, there are 17 interviews conducted in total, yet the total number of participants is 21. 11 males and 10 females participated in this study, and their ages range from 25 to over 55 years old. It is also worth noting that 18 participants were the business owners, and the other three were the general managers in their businesses.

Table 5 - Participating tourism SMEs overview

<b>Business Type</b>	Accommodation	11
	Tourism Activity	7
	Multi-business	4
<b>New/established business</b>	New	3
	Established	14
<b>Gender</b>	Male	11
	Female	10
<b>Age Group</b>	25-35	6
	36-45	3
	46-55	6
	Over 55	6
<b>Position</b>	Owner	18
	General Manager	3
<b>Single/paired interview</b>	Single	13
	Paired	4



### **3.2.3 Data collection**

As supported by Polkinghorne (1995), the original meaning of narrative has been extended to refer to any data that takes the form of natural discourse or speech, interviews included. As a consequence, interviews were conducted for data collection purposes and then the original interview data was transcribed for further analysis. An interview is a data collection methodology in which an interviewer asks questions of a respondent, and is one of the most commonly used story collection methods (DiCicco-Bloom & Crabtree, 2006; Mura, 2015; Whiting, 2008). Real life stories as the source of data were collected through semi-structured interviews for this study. The researcher has also collected extended answers from the research participants based on a sequence of same pre-set questions. The interview questions (see Appendix 7.1) were designed to be open-ended, aimed at enabling the research participants to pursue individual reflection and suggest other areas for discussion (Bishop & Glynn, 1999). Comprehensive field notes were taken simultaneously in order to supplement the interviews.

#### **3.2.3.1 Justification of the data collection method**

In general, qualitative interviewing is a powerful and flexible research tool for a researcher to capture the voices and the ways people make meaning of their personal experience (Rabionet, 2011). Also, narrative in social history and anthropology is normally woven from observations and interview streams and is concluded from the interviewee's life story (Riessman, 2005). As a consequence, the researcher believes that the purpose of this research will be better addressed by collecting raw data through interviews. In this way, the researcher can gain a deep understanding of the participants' personal experience through thorough interpretation. More specifically, the semi-structured interviews, which are non-standardised and more flexible, can provide the research participants with more freedom in producing personal discourse (Kajornboon, 2005). In addition, Kajornboon (2005) suggests that a semi-structured interview is suitable for the researcher who wishes to prompt and probe deeper into the research situation. Since different participants responded differently to the same question, semi-structured interviews allow the researcher to ask more questions related to the specific situation of each participant.

### **3.2.4 Data analysis using narrative analysis approach**

In this study, the narrative approach was adopted as a form of reality construction, and served as the guiding methodology for the research, as indicated in the previous discussion. Thus, after the data collection process, this section discusses the process of data analysis. Section 3.2.4.1 provides an introduction to the narrative analysis. Section 3.2.4.2 discusses the most important characteristics of narrative analysis. These features distinguish it from the other forms of reality construction, and guided the researcher throughout the research process. Then, the researcher will discuss the detailed data analysis steps used in this research. To analyse the data, first, the researcher thematically organised and analysed the raw data collected from 17 individual interviews and configured a general narrative story. Second, the researcher configured three individual narrative stories that could provide further illustration of the main findings and detailed answers to some of the research questions. These two steps are presented in sections 3.2.4.3 and 3.2.4.4. The justifications of the guiding methodology in this study, narrative analysis, are discussed in section 3.2.4.5.

#### **3.2.4.1 Introduction to narrative analysis**

Being a relatively new research methodology, narrative analysis has gained popularity among scholars in the social science discipline in the last 30 years, with literary theorists and semioticians beginning to talk about narrative instead of folk tales, myths and novels (Mura & Sharif, 2017; Ryan, 2007). Scholars argue that it is difficult to define the term “narrative” in a complete or self-sufficient manner. Ryan (2007) concludes that there is a strong consensus among traditional narratologists on the nature of the term “narrative”, which is generally defined as the representation (discourse) of an event (story) or of a sequence of events (e.g., Abbott, 2002; Genette, 1982). Narrative, as a term, is believed to have a polysemantic nature and can indicate different concepts (Mura & Sharif, 2017). For example, narrative can be seen as genre, metaphor and discourse (Daiute & Lightfoot, 2004). In addition, Ryan (2007) suggests that narratives have four dimensions, namely, spatial, temporal, mental, and pragmatic. The spatial dimension means that the narrative should be about individuated existents. The temporal dimension refers to the concept that conditions of narrativity should be situated in time and undergo transformations caused by non-habitual physical events. The mental dimension refers to the requirement that some of the agents in

the events must have a mental life and react emotionally. The pragmatic dimension means that there must be a causal chain connecting the sequence of events and the story must convey meaningful ideas to the audience. It is worth noting that these four dimensions resonate well with the context of this study, especially the temporal and mental dimensions. This narrative analysis will be conducted on SME owners and managers, mostly entrepreneurs, who have experienced the 2016 Kaikoura earthquake, a non-habitual physical event. This demonstrates the temporal dimension of narrative analysis. In addition, as psychological capital is one of the main components of this study, it is inevitable for the researcher to study the mental life and emotional reactions of the research participants before and after the earthquake. This addresses the mental dimension of the narrative analysis. It is crucial to mention that a narrative and a story are not entirely the same, as Ryan (2007) points out that a story is only a partial synonym for narrative and narrative involves the reconstruction of human minds. In this research, the researcher employed narrative analysis as the guiding methodology to construct the narrative reality. In addition, a thematic analysis was conducted prior to the narrative analysis in order to identify common themes, possible patterns and relationships, and the general similarities and differences from the research data.

#### **3.2.4.2 Guiding features of narrative analysis**

Scholars believe that since the Enlightenment, the study of the mind has centred principally on how people access the true knowledge of the world (Bruner, 1991). Empiricism assumes that there is no absolute truth in people's knowledge, because people only come to understand what is true from what they are exposed to. On the other hand, rationalists reflect on the basic idea that "human beings achieve knowledge because of their capacity to reason" (Bernard, 2011, p. 3). Regardless of the differences between how empiricists and rationalists study the human mind, the similarity in either case has been to discover how humans achieve reality (Bruner, 1991). According to Gubrium and Holstein (2009), stories have captivated social researchers ever since the observation surveys of London's humbler classes were conducted by Henry Mayhew and associates in the 1850s. Gubrium and Holstein (2009) suggest that Henry Mayhew wished to make the voice of the humbler classes heard as it was often ignored by society. In order to reveal the reality of a group of neglected people, the narrative analysis emphasised the importance of the word "own". Then, the American sociologist Clifford Shaw proposed that storytelling by the people whose experience was

under consideration was more convincing, truthful and useful than those stories derived from other sources (Gubrium & Holstein, 2009). Thus, the first reason for using narrative analysis as a research methodology in this study is that narrative constructions can achieve “verisimilitude”, rather than convincing other constructions generated by logical or scientific procedures that can be weeded out by falsification (Bruner, 1991, p. 4). In addition, Bruner (1991) argues that human knowledge and skill are domain-specific, which means that principles and procedures from one domain are not automatically transferable. Thus, seeking reality may require integrating principles and knowledge from different domains. However, although researchers have learned a great amount about the world through different domains in terms of possibilities, causes, results and so on, Bruner (1991) points out that indeed we know altogether too little about the rich and messy domain of human interaction. This is then another one of the reasons that narrative analysis as a methodology is needed, because narrative analysis is helpful to organise human experience and the memory of human happenings.

Now the researcher wishes to present seven features of narrative as a reality-constructing form. The following features are suggested by Jerome Bruner (1991), and have guided the research process of this study. How the researcher had addressed these features in the analysis is presented in the general narrative story in Chapter 4, section 4.3. In addition, the features are presented to hopefully contribute to a further understanding of narrative perspective in terms of its requirements, uniqueness and authenticity.

- (1) *Narrative diachronicity*. As it is implicated from the term, temporal sequence is essential to narrative, and often the importance of time is provided by the meaning assigned to events within its compass (Bruner, 1991). It is possible to discover all the direct or meaning-preserving sequence of clauses with regard to a time sequence in a narrative discourse itself. However, an important requirement of narrative representation is to discover the temporal sequence hidden behind the verbal or written stories.
- (2) *Hermeneutic composability*. This term refers to extracting a specific meaning from the meaning expressed in the narrative (Bruner, 1991). This characteristic of narrative resonates well with the requirement of demonstrating the researcher’s reflexivity throughout the narrative analysis process. Nonetheless, the reflexivity of researchers and the hermeneutic composability of narrative may result in differences between what is

extracted from the text and what the text might mean, thus a deep understanding of this potential difference becomes important in conducting narrative research (e.g., Bishop & Shepherd, 2011; Bruner, 1991). The dilemma regarding the difference between the actual meaning and the reflection from the researcher is best solved by making the story consistent, as proposed by Bruner (1991). This means that the researcher should frequently go back to check whether the specific meaning of the parts is in congruence with the big picture. In addition, two contextual issues regarding the narrative form cannot be ignored in the research process. First, the researcher must identify the “intention” of the storyteller regarding why, how and when the story is told (Bruner, 1991, p. 10). Second, the researcher will also need to discover and clarify the “background knowledge” of both the storyteller and the listener (researcher). This process presupposes that both the storyteller and the researcher are not omniscient. The background knowledge about the storytellers avoids ignorance of the deficits in storytelling, and also avoids easing the task by deliberately assigning an interpretation to a meaning according to the researcher’s wish.

(3) *Canonicity and breach.* Not every sequence of events can be regarded as a narrative, instead, the source of a narrative should be canonical and story-like rather than pointless. To put it simply, “breach” means evidencing the unusual elements in a narrative story and properly interpreting the element in order to capture the most important and meaningful element from the story. Two components in narrative structure are considered crucial to shape a good narrative story, namely, what happened and why it is worth telling (Bruner, 1991). “Why a story is worth telling” captures the important element of breach in canonicity, and ensures the “tellability” of a story (Bruner, 1991, p. 12).

(4) *Referentiality.* It is also important to keep in mind that a narrative is different from infallibly revealing the reality. Based on reality, narrative is believed to have further created and constituted reality. This is also why Bruner (1991) proposes that narrative produces truths that are judged by their verisimilitude rather than their verifiability. The issue of referentiality in narratives also corresponds with the hermeneutic composability, because this as a feature of narrative creates differences between the original meaning and the extracted meaning of the narrative clauses, thus resulting in the distinction between sense and reference.

- (5) *Normativeness*. Generally, narrative stories consist of agents, actors, scenes and purposes, and an appropriate balanced ratio among these factors is determined by cultural convention. Once the convention is breached, the narrative becomes worth telling. Thus, Bruner (1991) also states that narrative should be constructed in a normative form, because the tellability of discourse rests on a breach of conventional expectation. However, narratives are not constructed with the aim of solving any unbalances and problems. Rather, narrative should be formed in a way that truly reveals the problems and unbalances in the story. The researcher thus believes that this viewpoint is also instructive and developable for conducting narrative analysis in this study.
- (6) *Context sensitivity and negotiability*. Bruner (1991) suggests that researchers should “suspend disbelief and stand naked before the text” (p. 17). That is to say, sometimes we inevitably interpret the storyteller’s intentions based on our own background knowledge of the context of the story, which is deemed as inappropriate in shaping a narrative. Therefore, once again, the importance of the interpretation process needs to be emphasised. It is also important that researchers should conduct the interpretation process cautiously. In other words, there is no absolute truth embedded in narratives; it is the cautious and reasonable interpretation of both the context and text of the narrative that counts. The interpretation process is based on a careful and deep understanding of the context behind the narrative story itself. This viewpoint is also supported by Mura and Sharif (2017), who suggest that different types of narrative analysis reject positivism. This means that reaching an “unbiased result” is not the purpose of taking a narrative perspective in conducting research (p. 196). Rather, a narrative perspective appreciates the process of interpretation and the reflexivity of the audience. Bruner (1991) further illustrates that it is the difference between perspectives that facilitates the generation of the narrative truth, and it is precisely the purpose of seeking for the narrative truth that drives a positivist perspective toward an interpretivist perspective in shaping narrative reality.
- (7) *Narrative accrual*. The last characteristic of narrative addressed here concerns how the researcher organised the parts of all the discourses into a holistic narrative story. First, historical-causal entailment should be found in order to prepare for a holistic story, which means that both a chronological sequence and causal relationship between events are essential components to shape a narrative story. Second, coherence by contemporaneity is

another crucial principle. Bruner (1991) defines the second principle as connecting things happening simultaneously. Here it is important to clarify that connecting does not refer to subsuming or creating historical-causal entailments. Rather, connecting means presenting and winding the events happening at the same time together into the story. Combining these two principles discussed above, the composition of a holistic narrative story is briefly presented.

### **3.2.4.3 Thematic analysis**

Drawing from Riessman (2005), among the various models of narrative analysis such as the thematic analysis, the structural analysis, the interactional analysis and the performative analysis, this study adopted the thematic analysis model in the first step of the data analysis procedure. The thematic analysis conducted in this study aims at finding main similarities and differences among all 17 individual transcripts, and helping to generate a general narrative story. The thematic analysis focuses on what is said more than how it is said, and in so doing, the researcher carefully focused on the content of the transcripts (Riessman, 2005). In addition, as the name of the model suggests, thematic analysis requires the researcher to organise the narrative by themes. As a result, following Riessman's (2005) suggestion, the researcher inductively created conceptual groupings from the data based on the main similarities and differences identified.

Thematic analysis is a widely-used analytic method, as it offers an accessible and flexible way to analyse qualitative data (Braun & Clarke, 2006). Given that the researcher collected 17 individual stories from different business managers and owners, it is crucial for the researcher to conduct the research under a useful approach which theorises across a number of cases (Riessman, 2005). The thematic analysis in this research has formed the foundation for the narrative configuration of a general narrative story. Since thematic analysis is a widely-used, yet poorly demarcated and rarely-acknowledged qualitative analytic method (Braun & Clarke, 2006), the researcher decided to follow Braun and Clarke's (2006) guideline to conduct the thematic analysis for this study. The researcher believes that by doing so, systematic and methodic themes will emerge, thus providing a solid analytical ground for the narrative configuration.

**Step one: Familiarising myself with the data.** The researcher first transcribed 17 interviews, and made sure that those transcripts render and transform reality, as suggested by Bamberg (2012) (note the transcripts for this study are available upon request). No automatic or online transcribing tool was used in this step, as the researcher believed that transcription itself formed an interactive process, which enabled her to immerse herself in the data (Braun & Clarke, 2006). The researcher did not leave out any fillers in speech patterns such as “you know”, “um”, and “like” when transcribing the interviews, because it was assumed that some of the fillers in speech patterns might have implicit meaning in altering what was stated, or in expressing emotions such as disappointment and happiness (Simon & Goes, 2013). One example is provided below:

*“So...um, yeah, which was good, and when that finished and then...they allowed, eh, you to apply for a grant. So, we applied for that, but we got declined, because we were a new business.”* (Participants 8, owner-operator, husband and wife)

In addition, all the observable actions during any interview were noted down and placed in brackets in order to probe the meaning of those actions (Simon & Goes, 2013). See the examples below:

*“...I’m not really a good writer of plans. But, I’ve got it here (pointing to her head), and I know that in the next couple of years, I wanna be out of here, um...doing something different.”* (Participant 4, owner-operator)

*“...The business is not a widget-making business, it doesn't make, you know (pointing to the researcher's bag on the table), bags...”* (Participant 10, general manager)

After transcribing all the interviews, the researcher then carefully read through the research data gathered from the interviews. Since the data was collected through interactive semi-structured interviews and has been transcribed thoroughly, the researcher came to the analysis process with the initial knowledge of the research data (Braun & Clarke, 2006). This knowledge included the overall financial impact on the selected tourism businesses, the status of the recovery with regard to the selected businesses in Kaikoura in general, the general similarities and differences among the participants' attitude towards business recovery, and the business goal of each selected business after the 2016 Kaikoura earthquake. Then, the



researcher “immersed” herself in the data by carefully reading through the entire dataset several times in order to be familiar with the depth and breadth of the content (Braun & Clarke, 2006, p.16). By doing so, some general ideas of the possible patterns identified in the data were shaped and recorded down in the research notes. For example, by repeatedly reading through the entire dataset, the researcher noted down: patterns in the difference in organisational resilience and recovery status of new and established businesses; the difference in government support given to new and established businesses; and the general feeling about how the research participants showed entrepreneurial decision-making in the post-disaster period.

***Step two: Generating initial codes.*** Theoretical codes were then generated to analyse some important aspects of the data, which were closely related to the research questions and the literature. The text associated with organisational resilience was coded according to Stephenson’s (2010) new model, which identifies the 13 indicators for organisational resilience. McManus’s (2008) original proposition was also used for reference to assist the analysis process. In addition, the psychological capital components were identified and coded strictly according to the literature. For example, self-efficacy for each of the interviewee was coded under three dimensions, namely, magnitude, generality and strength, as the literature suggests (e.g., Bandura, 1977; Luthans et al., 2007). The codes associated with optimism were only assigned when the transcript text demonstrated specific motivation through optimism; the ability of the interviewee to explain the causes and outcomes of the event in an optimistic explanatory manner; the ability of the interviewee to attribute the cause for negative events to be external and temporary; the ability of the interviewee to think that the cause of positive events was within his or her control; and realistic optimism (Luthans et al., 2007; Peterson, 2000; Seligman, 1992). The same rule was also applied to hope. Hope was coded if the participant has demonstrated the three components of hope, namely, goal, pathway and agency (Snyder, 2002). When it comes to psychological resilience, the “rebound” and “bounce back” ability needed to be identified first before assigning codes (Luthans, 2002, p. 702). Some of the text associated with coping mechanisms was also coded using theoretical codes identified from the literature.

However, since there was no previous research done on the topic of this study, the researcher decided to also incorporate an inductive approach to generate initial codes. The inductive coding procedure was conducted after the theoretical coding. Instead of relying on the

theories proposed in the previous research in relevant fields, the inductive coding process enabled the researcher to identify and assign codes which were strongly linked to the data itself (Braun and Clarke, 2006). What's more, through the inductive coding approach, more codes and patterns emerged as being context-specific that the researcher had not considered before, and were valuable for generating additional research findings. For instance, the entrepreneurial orientation identified among the research participants might alter the way in which psychological capital components were demonstrated. In addition, some of the context-specific and newly-recognised coping mechanisms were coded through the inductive approach. More importantly, the inductive coding approach helped the researcher to identify additional factors that might have played a significant role in the current research. The additional factors include the different support received from the government, from local businesses, and received through personal networks.

One example of how the codes were assigned is presented below in Table 5. Following Braun and Clarke's (2006) guideline, the researcher coded interesting features of the data both inductively and theoretically in a systematic way across the 17 interview transcripts. The detailed coding scheme of the research is included in Appendix 7.2.

Table 6 - Data extract, with codes applied (examples taken from Participants 14's transcript)

Data extract	Coded for
Yeah, I believe in myself, absolutely. I am very ambitious, and I like to feel that I'm in control of what I do and what I can do. If I almost dream on something that I want to do, and generally, I will make them happen.	1. self-efficacy - strength 2. self-efficacy - magnitude 3. self-efficacy - generality
I would definitely say Plan B. Yes...yeah, and actually if you have noticed my office at home, I've got a...notepad with the Plan Bs... What's it's writing on? Oh, yes, life is all about how to handle Plan B. Yeah, always thinking ahead, not just for now. Yeah, always thinking... (Q: So, do you think you are in control of your destiny, and of your own life and business?) Absolutely, yes. Um, we're...myself and my husband are very organised people, we're very pragmatic. We're realistic, we're hardworking.	1. hope - pathway - the ability to find alternative pathways 2. hope - goal 3. hope - agency - strong self-determination
Yeah, but I don't think...ever, we should take it for granted that people will just come. We worked very hard for them to come here, because especially that we are outside the town. So, I would never have been taken for granted, never, ever. There's always a high respect for them coming and appreciation for them coming.	1. optimism - realistic optimism
Just staying strong, I believe. And, stood for what we believed in. But still have to be submissive to the changes as well. Accept what we didn't want to accept, which was very hard. I always believe anything that happens in life happens for a reason, and it was a fantastic learning curve for us in our life. Then, we didn't realise, but now when I look back, I learned so much... So, there's never really anything negative, really. And anything that happened, because there's always something good that comes out of it. Even with the earthquake, there's been lots of good things that come out of it.	1. psychological resilience - adaptiveness 2. psychological resilience - developable nature 3. optimism - always see the clearer side 4. coping mechanism - rational thinking 5. coping mechanism - positive thinking
So, all our money was gone, basically. But I've always kept aside, like an instinct that we always need to be careful...and I've always been very good at putting the money aside and make sure that we needed it for some day. And, I did, that's what got us through. In town, there are a lot of businesses, they don't think about that they have to plan for the future. By putting that organisational resilience that I put into the business, that financially, always insuring that our cash flow was ok.	1. organisational resilience - internal resource 2. organisational resilience - proactive posture 3. organisational resilience - planned vs adaptive
Well, the...the government's support was fantastic. I must...honestly thank them very much for that. That was just given to us without question, and that was wonderful. The grant - they've also given us the grant, which I didn't apply for, I was approached by them for that - I wouldn't have known about that.	1. Macro level support - govt. grant - given to established business without application process
Some of the other businesses were extremely kind, they were extremely kind that I couldn't believe it. Yeah, and, some of them gave us the Eftpos machine for free until we were ready... which was absolutely amazing. We had to get our laptops fixed, and they wouldn't charge us, they said "no worries". So, that was wonderful. There was a lot of compassion, a lot of compassion, which was very touching.	1. Meso level support 2. organisational resilience - effective partnership/external resources
Yeah, well, you (the son of the interviewee) were helping a lot...	1. Micro level support - family support

***Step three: Searching for themes.*** After coding all the data throughout the 17 individual interviews, the researcher then began to search for themes. According to Braun and Clarke (2006), this step focuses on the broader level instead of the detailed codes, and involves the action to categorise different codes into related themes. Following Braun and Clarke's (2006) suggestion, the researcher first wrote down each code with a brief description on the research note and organised them into theme-piles. In doing so, the researcher created one excel file to summarise all the details identified from each of the interview transcript according to the codes assigned. The detailed excel table is included in Appendix 7.3. The components of the excel file includes a brief note for each participating tourism SME, different psychological capital dimensions, different coping mechanisms identified from the data, the 13 organisational resilience indicators, and the support from three levels. The brief note for each participating tourism SME includes the number of employees for each one of them and whether the participating business is a new business or an established business. Under the broad theme "psychological capital dimensions", four psychological capital components – self-efficacy, hope, optimism and psychological resilience – were included. When it comes to the coping mechanisms, 12 identified from the data were avoidance, social referencing, social support, doing things for others, personality, rational thinking, positive thinking, emotional support, emotional venting, using previous experience as a coping mechanism, and whether the specific interviewee relied more on emotion-focused coping mechanism or problem-focused coping mechanism. Then, the 13 organisational resilience indicators were categorised under two factors, planning and adaptive capacity, as suggested by Stephenson (2010) and Lee et al. (2013). Last but not least, the three-level support includes; (i) "macro" level support, which is the support received by each participating tourism SME from the government; (ii) "meso" level support, the support received from other businesses, and (iii) "micro" level support, the support received through the participants' personal networks.

Obviously, following the structure of the interviews, the initial broad themes emerged when the researcher tried to categorise each and every code under two theme-piles, namely, psychological capital and organisational resilience. As the research went further, another broader theme emerged from analysing the codes as being coping mechanisms, and once again demonstrated the inductive approach suggested by Braun and Clarke (2006). At this stage, it seemed promising as the literature has suggested that a coping mechanism bridges the gap between psychological capital and workplace performance. The researcher then came

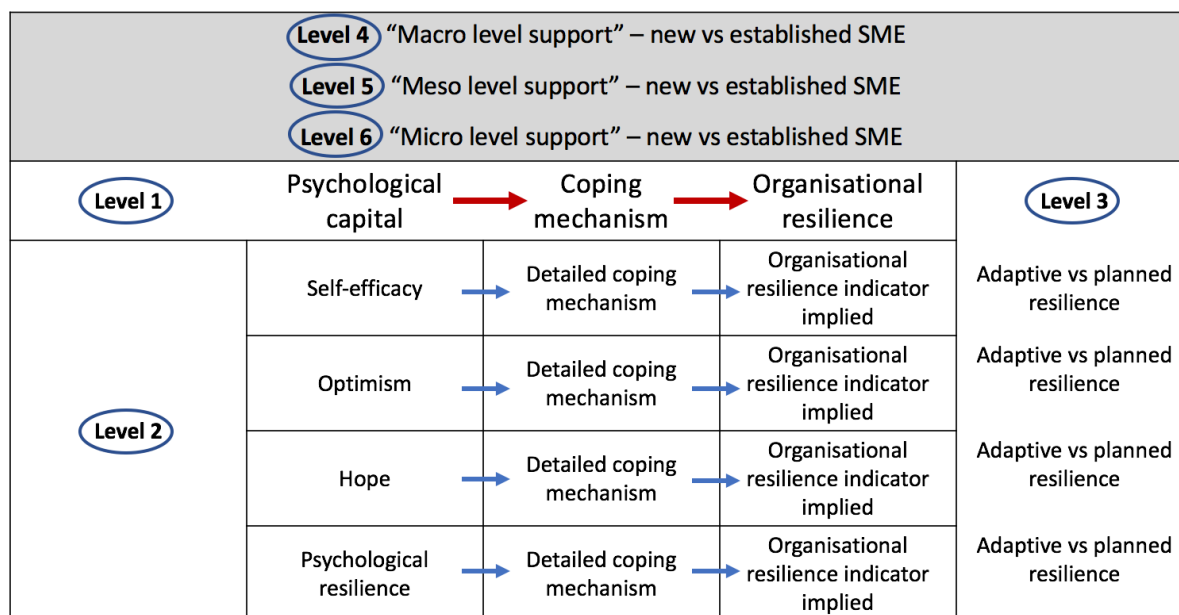
to realise that it was possible for the coping mechanisms identified throughout the 17 interviews to serve the same function in bridging psychological capital and organisational resilience. As for the three-level support, the codes assigned under this category were inductive in nature, and through the text and context of each interview transcript the possible relationships between different supports and the research question can be further investigated. Apparently, the initial categories from the excel table were new/established business, self-efficacy, optimism, hope, psychological resilience, various coping mechanisms, planned/adaptive organisational resilience, and the supports from three different levels. As a consequence, the researcher then began to investigate any underlying patterns and possible patterns among the initial themes supported by the data.

In doing so, the researcher then carefully recorded the codes assigned for each interview transcripts by writing down “yes” or “no” under each category in the excel table. For example, self-efficacy was identified through the codes assigned for Participant 1, then the researcher wrote down “yes” under “self-efficacy” in the row of Participant 1. The same procedure applied to the whole table. After doing so, the researcher then calculated the number for “yes” and “no” under each category. For example, 15 participants demonstrated self-efficacy, while two participants did not demonstrate enough self-efficacy. The same process then applied to the whole excel table. This process helped the researcher to better understand the repeated patterns identified from the interviews, which would lead to a further analysis process that identified the possible thought patterns and relationships among the categories. However, the researcher knew that a repetitive analysis should be once again conducted on the data to decrease the possibility of misinterpreting the data. This was done by the researcher in step four. Here it is worth noting that the researcher did not abandon any data at step three. Drawing from the literature, it is not wise to abandon anything at this stage without analysing in detail (Braun & Clarke, 2006).

***Step four: Reviewing themes.*** Then, the researcher took the fourth step to review the themes generated in step three. This step involves two levels of reviewing and refining the themes (Braun & Clarke, 2006). First, the researcher reviewed all the collated extracts for each theme to confirm the coherent pattern among the extracts. In doing so, the researcher carefully read and reread the data extracts under the initial themes. At this stage, the researcher was able to abandon several unrelated contents after carefully reviewing the extracts in detail. For example, Participant 15 is an entrepreneur who owns an established tourism activity SME.

Unlike the other owners and managers of the established businesses, she did not demonstrate adequate self-efficacy through magnitude, generality and strength. However, the other three psychological capital components and the coping mechanisms demonstrated by Participant 15, the organisational resilience indicators of her business identified from the coding process, and the different supports that she received formed the same path when compared with other stories told by established business owners and managers. Thus, under this circumstance, the researcher assumed that this difference in terms of Participant 15's inadequate self-efficacy did not necessarily form a unique theme. Reflecting on Braun and Clarke (2006), this is one example of how the researcher discarded some of the extracts from the analysis. Second, after discarding some irrelevant extracts and identifying the possible patterns and relationships among the initial themes, the researcher then refined the excel table into a neat and new figure. The new figure was comprised of refined and detailed possible patterns and relationships identified among the themes supported by the data.

Figure 1 - Possible patterns and relationships identified from the thematic analysis



Step four helped the researcher to generate one figure as shown above. The figure shows six levels of the thematic analysis and the possible patterns and relationships identified among the initial themes. The analysis at the first level identified three broader themes, psychological capital, coping mechanisms and organisational resilience. Through step four, it became clear that some specific coping mechanisms were often used by the research participants after demonstrating specific psychological capital components. Then, these

different psychological capital components, along with the corresponding coping mechanisms, were likely to enhance the organisational resilience. This identified pattern is shown by the bigger arrows in the above figure.

The analysis at the second level was a detailed explanation of the first-level analysis, and guided the researcher to identify:

- (i) How participants who have demonstrated self-efficacy managed organisational resilience, and if they did, which coping mechanisms were used by them.**
- (ii) How participants who have demonstrated optimism managed organisational resilience, and if they did, which coping mechanisms were used by them.**
- (iii) How participants who have demonstrated hope managed organisational resilience, and if they did, which coping mechanisms were used by them.**
- (iv) How participants who have demonstrated psychological resilience managed organisational resilience, and if they did, which coping mechanisms were used by them.**

These identified patterns in the thematic analysis are shown in the above figure by the smaller arrows. Then, the analysis proceeded to the third level. At this level, the researcher was able to identify whether the organisational resilience indicator implied by the previous analysis showed adaptive or planned resilience by referring back to the literature.

The analysis at levels four to six was all inductive in nature. The researcher found from the data that the different supports received by the participants seemed to have influenced their psychological capital, especially the financial support received from the government. As a consequence, the analysis of the fourth level was conducted on the “macro” level support, which refers to the government support received by different participating businesses. The analysis of the fifth level was conducted on the different supports that the participating businesses received from other local businesses, and was named as “meso” level support. The analysis of the sixth level was conducted on the different supports received by the research participants from their family members and friends, and was named as “micro” level support. By repeatedly reading and analysing the data, the researcher identified that the support received differed substantially between new businesses and established businesses.

***Step five: Defining and naming themes.*** The fifth step of the thematic analysis was about defining and naming the themes. This is also the last step before producing the report for the entire thematic analysis result. In doing so, the researcher further probed into the essence of each theme, and captured the exact aspect that each theme demonstrated (Braun & Clarke, 2006). To prepare for the report, the researcher also went back to the collated data extracts under each theme, and made sure that they were coherently and consistently organised. More importantly, the researcher understood clearly that to name each finalised theme was not to simply paraphrase the data extracted. Rather, the requirement of this step was to make sure that what was of interest about each theme was addressed. “What is of interest” was defined in this step as: (i) what directly answers the research question; and (ii) what was identified to be interesting and important and has indirect influence on the research questions. For example, one final theme was named as “self-efficacy: innovation and creativity”, from which the relationship between the first component of psychological capital and the innovation and creativity capacity of the business can be directly understood. The name of this theme also partly answers the first sub-question of this study. Also, there is another theme named “macro level support: differs between established and new businesses”, and from which no direct relationship between this theme and the research question can be identified. However, the theme contains interesting and important information that indirectly influenced the psychological capital components demonstrated by the participants, as well as the organisational resilience. Such themes were retained and named by the researcher, and were included in the thematic analysis report as well as in the narrative stories.

***Step six: Producing the report.*** The final step for the thematic analysis was the write-up of the report. Until then, the researcher has prepared a set of fully worked-out themes with descriptive names. To write up the thematic report, the researcher followed the instruction by Braun and Clarke (2006), which suggests that the report should provide a “concise, coherent, logical, non-repetitive and interesting account of the story the data tell” (p. 93). The researcher carefully organised the possible patterns and relationships within and across themes, and used an interpretative and explanatory writing style to avoid complexities. In addition, in the final thematic report, the researcher included the most representative data extracts that captured the essence of the specific theme to further explain the issue. The researcher also went beyond description of the data, and used the analytic narrative as well as



the data extracts to explain the relevance to the research questions (Braun & Clarke, 2006). Accordingly, the final report for the thematic analysis is provided in section 4.2, Chapter 4.

#### **3.2.4.4 Narrative configuration**

After the thematic analysis, the researcher began the narrative analysis based on the themes identified from the thematic analysis. Narrative analysis takes various forms in previous studies, and there is no one universal way for researchers to conduct narrative analysis (Mura & Sharif, 2017). In addition, Polkinghorne (1995) points out that the term narrative is used equivocally both in everyday conversation and in qualitative studies. Polkinghorne (1995) points out that narrative analysis differs entirely from the analysis of narratives. The analysis of narratives employs paradigmatic reasoning in the actual analysis, collects stories and analyses stories paradigmatically, and eventually generates common themes across the stories collected. However, narrative analysis takes the path of narrative reasoning, collects elements and happenings, and eventually configures stories with the elements and happenings collected, gluing them with a consistent plot. In short, the researcher wants to highlight the difference between these two methods by a quote from Polkinghorne (1995):

*“Thus, analysis of narratives moves from stories to common elements, and narrative analysis moves from elements to stories.” (p. 12).*

As this study aims at using narrative analysis to answer the research questions, the difference between narrative analysis and analysis of narratives is worth noting. The thematic analysis provided a solid analytic ground for narrative analysis in this step, because the researcher was able to glue the “elements” identified from the thematic analysis into “stories”. The researcher first configured a general narrative story to highlight the main similarities and differences among the 17 individual interviews, and the thematic analysis forms the basis for the general narrative story. To produce the general narrative story, the researcher collected and transformed essential elements from the thematic analysis report. In addition, representative data extracts from individual interview transcripts were also provided to further illustrate the interesting findings. After producing the general narrative story, the researcher then carefully wrote three individual narrative stories to demonstrate the most interesting findings in the general narrative stories, as well as to answer the research

questions in detail. The representative individual narrative stories were generated based on the interview transcripts of Participant 11 (paired interview), Participant 13, and Participants 14 (paired interview). The basis for the three individual narrative stories was the thematic analysis report, the general narrative story, and the corresponding individual interview transcripts.

Although the basis varied for the general narrative story and the three individual narrative stories, their configurations were based on the same principle. Now it is important to point out that the features of a narrative analysis were carefully addressed in this research following the suggestions from Braun and Clarke (2006), as already discussed in section 3.2.4.2. On the other hand, the detailed configuration process of the narrative stories using narrative analysis has followed the step-by-step instruction from Polkinghorne (1995). Taking the viewpoint and suggestion from Polkinghorne (1995), the researcher configured both the general narrative story and the three individual narrative stories according to the steps listed below.

#### ***Identify and include the cultural context***

For the general narrative story, the protagonist was an integrated account of all the 17 interviewees. As a consequence, the cultural context of Kaikoura was included in the general narrative story as the background.

For the individual narrative stories, the protagonist was the specific interviewee. As the protagonist in each of the interviews has shown embedded personal values, worldviews, meaning systems, and language conceptual networks of the culture that they have grown up in, the researcher's foremost task was to identify the cultural heritage, the social environment as well as the milieu that shaped the style of the specific protagonist. This process attended to the contextual features, and enabled the identification of specific meanings to specific events, and eventually contributed to the understanding of the storied narrative plot, as suggested by Polkinghorne (1995).

#### ***Attend to the embodied nature of the protagonist***

The embodied nature of the protagonist includes bodily dimensions and genetic-given propensities, and both of them can determine the differences among individuals, as suggested by Polkinghorne (1995). In doing so, the researcher identified data from the comprehensive

field note regarding the bodily dimensions of the interviewees. For the general narrative story, the embodied nature of the 17 interviewees was briefly introduced at the beginning. For the three individual narrative stories, the embodied nature of each protagonist was also provided. The purpose of this step is to prepare for the storied explanation, which may concern the causal relationship between the embodied nature of the protagonist and the consequent actions. For instance, it was found through the analysis that foreign protagonists who did not have adequate experience of living in New Zealand demonstrated relatively weaker psychological resilience when compared with local protagonists.

### ***Concentrate on the choices and actions of the protagonist***

Apart from identifying the embodied nature of the protagonist that might have been influenced and altered by the cultural context, it is also important to concentrate on the actual choices and actions of the protagonist in both the general narrative story, as well as the individual narrative stories. Based on Polkinghorne (1995), the researcher has gone through the process that grasped each protagonist's vision, plans, purposes, motivations, understanding of the events and personal interests. Moreover, considering the purpose of this study, it was of great importance to attend to the inner struggles and emotional states of the protagonist before and after the earthquake. The principle here is that different people may respond differently to the earthquake, and this process also helped the researcher to understand the different levels of psychological capital within different protagonists by analysing different actions and how the participants responded to the same event. For the general narrative story, the main similarities and differences in terms of the actions of the 17 interviewees were discussed. For the individual narrative stories, the choices and actions demonstrated by each selected protagonist in each story were written in detail, further presenting the different psychological capital and coping mechanisms, and the implied resilience of their businesses.

### ***Identify the importance of the significant others***

Drawing from Polkinghorne (1995), narrative configuration requires the researcher to identify the significant others instead of only attending to the central protagonist. This requirement from the literature resonates well with the findings from the thematic analysis, which suggested that local government, the other businesses in the region, as well as the family members and friends of the protagonists, played important roles in the story. In this way, identifying the significant others became the requirement of both the thematic analysis

as well as the narrative configuration. Therefore, the significant others were included in the general narrative story, and the identified relationships between the significant others and the research questions were further explained in the general narrative story as well.

For shaping each individual story, the researcher also needed to identify the detailed significant others. The researcher believed that an explanation of the relationships between other people and the protagonist was essential in shaping the plot for each story, as suggested by Polkinghorne (1995). In doing so, the researcher identified the words, sentences and paragraphs regarding the significant others from each interview transcript. For example, the mother in the Participant 14 pair strongly appreciated the grant from the government and the generous help received from other businesses. Apart from the government and the other businesses in town, she also mentioned about her husband and her son and their contributions during the business recovery period. Participants 11 strongly appreciated the coming of Chinese tourists, which increased their post-disaster morale and inspired the innovation and creativity capacity of their business. Such detailed explanations of the significant others were included in all of the three individual narrative stories.

### ***Consider the historical continuity of the characters***

The meaning of considering the historical continuity of the protagonists in narrative configuration is two-fold. On one hand, as people are historical beings, their thoughts and actions are inevitably more or less influenced by their embedded habits and past experience. On the other hand, it is also absolutely possible that, in the face of some specific events, the patterns of thoughts and actions gained from historical experience discontinue to influence their current thoughts and actions. The second meaning of this process enabled the researcher to consider the protagonist's struggle to change habitual behaviours by comparing the differences between their actions and thoughts before and after the earthquake (Polkinghorne, 1995).

Based on the suggestion from the literature and the thematic analysis findings, the researcher identified the similarities and differences in historical continuity among the 17 interviewees, and included this finding in the general narrative story. To briefly conclude, the historical continuity in the general narrative story highlighted the developable nature and the process view of psychological resilience, the important role the business network established before the earthquake played during the business recovery period, as well as the importance of

planned resilience identified before and after the 2016 Kaikoura earthquake. After the general narrative story, the historical continuity demonstrated in the three individual narrative stories served as representative examples of and explanations about the general narrative story, and helped answer the research questions in more detail.

### ***Generate narrative story with a clear temporal sequence***

As discussed at the beginning of this section, the nature of the narrative analysis employed in this study is the generation of stories. As a consequence, the researcher followed Polkinghorne's (1995) suggestion and marked the beginning and denouement for both the general narrative story and the individual narrative stories. The temporal sequence assigned to each narrative story served as the frame for the story. In the general narrative story, the time sequence supported by the data was straightforward and included three phases, namely, the time before the 2016 Kaikoura earthquake, the day that the 2016 Kaikoura earthquake struck, and the time period after the 2016 Kaikoura earthquake. The whole general narrative story was also crafted following this time sequence.

As for the individual narrative stories, the uniqueness of each story was based on the detailed characteristics, thoughts and happenings of each protagonist in particular situation. Those details were not overlooked in case the differences were missed. In other words, the general narrative story was crafted in a way that demonstrated a broad time sequence, while the individual narrative stories contained detailed and a case specific time sequence. For instance, the mother in the Participants 14 pair has operated her business for 14 years up until the earthquake, while Participant 13 was comparably new to town before the earthquake. In addition, different businesses took different times to see signs of recovery. This concern was also included in the three individual narrative stories. What's more, Participants 11 mentioned several specific dates when some significant events took place in town, which had an influence on their psychological state. These were all considered and included in the individual narrative stories.

### ***Configure a plot that serves as a glue to the whole story***

After identifying and preparing for the dimensions discussed in the above steps, it was time to put the whole story together with a consistent plot in order to make the story plausible and understandable to the readers. As introduced earlier, a plot in narrative configuration serves as a glue that draws together separate events and actions collected from the interviews. A plot

makes the story an organised whole and displays a clear contextual meaning of the story. The researcher thus constructed the general narrative story and the three individual narrative stories with their specific plots according to the following steps:

- (1) *Identify and write the denouement of each story.* It is reasonable to start writing the story with the ending or outcome of each story, because an outcome helps the researcher to select and include relevant data while excluding the irrelevant. For the general narrative story, the denouement or outcome was identified as being the contributing role of each psychological capital component in enhancing the specific aspects of organisational resilience. For the individual narrative stories, the denouement was identified as being the specific psychological capital components demonstrated by the protagonist, as well as the corresponding aspects of the organisational resilience.
- (2) *Chronologically arrange the data elements according to the denouement.* After identifying the outcome of each story, the researcher then arranged the events and actions in each story chronologically. This process was particularly emphasised through the configuration of the three individual narrative stories. The researcher went back to the selected interview transcripts of the three individual narrative stories, and analysed several keywords which were essentially helpful in identifying the time sequence, such as “in year XXXX”, “before”, “after”, “in the future” etc.
- (3) *Identify which elements are contributors to the denouement.* According to the denouement determined in the first place, the researcher then analysed and selected the relevant events and actions of each protagonist that she believed to have contributed to the final outcome of each story. The general narrative story highlighted the main similarities and differences among the 17 interviews, while the selected individual narrative stories probed deeper into the details of how the similarities and differences shown by the general narrative story were demonstrated by individuals.
- (4) *Identify and write up the causal relationships among events and happenings.* The researcher then organised the possible causal relationships identified from the thematic analysis into the general narrative story. The same procedure applied to the production of three individual narrative stories. However, the individual narratives

were based on both the thematic analysis, as well as the corresponding interview transcripts. This means that when writing the causal relationships among happenings for each of the individual narrative stories, the researcher kept going back to the original interview data and found connections among the events with the help of several keywords such as “because of”, “for the reason that” and “in order to”. In addition, the researcher also followed Polkinghorne’s (1995) suggestion and identified the connections that were combinations and accumulations of events that influenced a specific action instead of simply one-to-one connections.

(5) *Integrate and write up the narrative story.* With the help of the sequentially ordered events and actions identified in previous steps, the next process began with the construction of a plot outline which served as an intellectual guideline and a temporally patterned whole (Polkinghorne, 1995). After the plot outline is generated, the researcher then integrated the data altogether with possible patterns and relationships identified earlier and fitted them into the plot outline. In the process the researcher identified some incongruences where the outline failed to perfectly integrate all the relevant elements. This resulted in continuous adjustments to the outline until it fitted the data. For some of the stories, additional data were gathered through follow-up contacts with the research participants in order to fill in the missing links and produce an explanatory story (Polkinghorne, 1995). For example, the mother in the Participants 14 pair provided valuable information for the follow-up questions after the interview, and this additional information was also included in her individual narrative story. This process applied to both the general narrative story as well as the three individual narrative stories.

***Researcher’s reflexivity.*** The final step for the narrative configuration was to acknowledge the role and contribution of the researcher in shaping each narrative story. This is emphasised by Polkinghorne (1995), and further supported by Mura and Sharif (2017). Now it becomes obvious that narratives as stories in the present study are not simply reflections on the original data collected from interviews, but rather the final product of the analysis is one general narrative story and three explanatory individual narrative stories constructed by the researcher. The general narrative story was configured based on the thematic analysis findings, as well as the instructions suggested by Polkinghorne (1995), and the narrative configuration instruction also applied to the individual narrative stories that served as

explanatory examples of the general narrative story and further answered the research questions. Although the researcher carefully transcribed all the individual interviews, carefully identified all the dimensions that were supported by the data, and carefully organised the data according to the actual outcome of each story, each storied narrative was still a product under the reconstruction from the researcher. This inevitable subjectivity could not be left unmentioned in the final stories. The importance of reflexivity in research has also been recognised and emphasised by some tourism scholars (e.g., Everett, 2010; Mura, 2015; Mura & Sharif, 2017). Mura and Sharif (2017) conducted research which aims to analyse all the studies published in tourism and hospitality journals that employ narrative analysis, and identified the specific paradigms and methods used by these studies. Surprisingly, only three out of the 44 research papers in Mura and Sharif's (2017) study acknowledged the importance of the researcher's reflexivity.

#### **3.2.4.5 Justification for narrative analysis**

After discussing how the researcher configured the narrative stories, it is also important to discuss the reasons for choosing narrative analysis as the guiding methodology in this study. First, according to Gubrium and Holstein (2009), individual narratives can be viewed as "windows on inner life", and narrative analysis is suitable for studying and understanding domains of psychological experience that may be hidden otherwise (p. 7). An important component in this study is psychological capital, which is closely related to individuals as well as their psychological experience. Therefore, it becomes appropriate for the researcher to adopt a narrative analysis to fulfill the purpose of this study. Second, narrative analysis is not isolated from social environments and social impacts, but rather scholars argue that narratives provide both important information about individual experience and its social environment (Riessman, 1993). Mura and Sharif (2017) also suggest that narrative analysis assumes that individual stories are reflexive of social reality. This study was conducted in a post-quake context, which can be perceived as an unusual situation and environment. Through narrative analysis, the researcher believes that specific social reality in terms of the research questions will be unveiled. Third, unlike a traditional text-based approach such as content analysis, a narrative analysis approach avoids positivism and relies on objective realities (Mura & Sharif, 2017). More importantly, narrative analysis is a well-developed research method, especially in the social sciences, but is rarely adopted in tourism study



(Mura, 2015; Mura & Sharif, 2017). Only a small number of comprehensive tourism studies that incorporate a narrative analysis method can be found (e.g., Buzinde & Santos, 2009; Mura, 2015; Mura & Sharif, 2017; Volo, 2010). The researcher thus believes that by adopting narrative analysis in this tourism study the appropriateness of narrative analysis will be acknowledged by more researchers studying tourism-related issues. In addition, drawing from McCabe and Foster (2006), individuals involving in the tourism sector tend to employ a narrativistic attitude in describing experiences. Thus, it seems suitable to conduct a narrative analysis when trying to understand the experiences of tourism SME owners and managers in this study.

Considering the topic and research questions of the current study, the researcher believes that two purposes need to be addressed carefully. First, the study should identify the actions that reflect the psychological capital of the individual. Second, the study should identify either a positive or negative effect the reflected psychological capital has posed on the overall resilience of the selected business. Being a special type of discourse production, a story is an organised whole into which events and actions are drawn together (Polkinghorne, 1995). Therefore, narrative analysis helps to identify and present the human actions needed for the purpose of this study. In addition, the researcher also followed Polkinghorne's (1995) principle because stories can express a kind of knowledge that uniquely describes the relationships in terms of whether human actions and happenings positively or negatively contribute to the outcome. This is because the plots in narrative stories serve as the connection among the events and actions and strings them together with causal relationships (Polkinghorne, 1995). This character of narrative stories resonates perfectly with the second purpose as indicated above. The second purpose, furthermore, needs to be addressed through a comparison between the happenings before and after the 2016 Kaikoura earthquake. Thus, it seems suitable to write up narrative stories that show the different happenings throughout a clear time sequence. Polkinghorne (1995) suggests that storied narratives take the linguistic form while presenting the complexity of human actions chronologically, and also present the interrelationship among different happenings and elements. Therefore, the researcher believes that the original research data collected from the individual interviews should be organised into storied narratives in order to correctly and effectively answer the research questions of this study.

### **3.3 Ethics of the research**

Before conducting this study, the researcher had strictly followed the ethical guidelines provided by the Human Ethics Committee of the University of Canterbury (HEC). This study had been approved by the HEC before the first interview which had been conducted on 9 September 2017.

Based on the research topic and research questions, this study was not counted as low risk because it involved interview questions that might cause mental/emotional stress and the voice recording process. Besides, the research participants could stand for a vulnerable group because they have all experienced the 2016 Kaikoura earthquake. More importantly, because of the research design, some interview questions were related to the personal experience of the research participants, which raised the issues of participant privacy. As a consequence, the researcher has carefully answered every question on the Human Ethics Application Form (full application), and addressed every issue that the HEC raised after reading the researcher's application. The researcher now wishes to present some of the main issues raised by the HEC and how she has addressed them.

#### Confidentiality of the participants and participating businesses

Each research participant was provided with the information sheet and consent form for this research. It was included in the documents that all the data gathered from the interview would be securely stored and kept confidential, which was done by storing the data on the University of Canterbury server. A pseudonym was assigned to each research participant. In addition, no business name is mentioned in the Results and Discussions chapter of this thesis.

#### Protecting the research participants from mental stress

The researcher has modified the interview questions (see Appendix 7.1) once according to the HEC's concern in order to make sure that the possibility of psychological harm to the participants was reduced to the minimum. In case the possibility was not eliminated, all the research participants had been informed that they had every right to skip any questions if they felt uncomfortable.

#### The right of the research participants to review and modify their transcript

All of the research participants had been told about their rights to review and modify their interview transcripts. This information was also included in the information sheet and consent form for the participants. Some of the participants had reviewed and modified their interview transcripts, while others were happy with the original transcripts. The researcher has ensured that the final transcripts were accepted by all the research participants.

### **3.4 Limitations and challenges**

The research methodology was guided by the instructions of the narrative analysis, and was assisted with a comprehensive thematic analysis on the 17 interview transcripts. This methodology adopted provides this study with valuable findings and outcomes, but the researcher was faced with two main challenges throughout the process that could possibly result in several limitations for this study. As a consequence, it is also important to list the limitations and challenges after discussing the research methodology. The researcher believes that this research design can be improved in the future if these limitations can be overcome.

The first challenge faced by the researcher occurred during the sampling phase of the research. As mentioned before, the researcher aimed to complete 25 interviews but ended up with 17 due to the post-disaster conditions in Kaikoura. This resulted in an unbalanced ratio between the new and established tourism SMEs participating in this study. Thus, this challenge could have potentially become a limitation to the study result, as the result cannot fully explain the situation of tourism SMEs in Kaikoura, especially the situation for all the new tourism SMEs.

Second, the researcher acknowledges that the data analysis process may incorporate potential limitations. The voice records of all 17 interviews were manually transcribed by the researcher, because she believed that this process could help her familiarise herself with the data. However, the manual process was indeed time consuming. In order to fit into the duration of this Master's thesis, the researcher had to complete the transcribing process under an intensively planned time schedule, and meanwhile maintain the accuracy and quality of the transcripts. The challenge was eventually overcome, but it was recognised that transcription software could be adopted to make the process more efficient if the researcher is going to study a larger sample in the future.

### **3.5 Chapter summary**

To conclude, this chapter first presented the research aim and objective, along with the main research question and four sub-questions. Second, this chapter has explained the interpretive research paradigm adopted throughout the study, and a thorough justification of the selected research paradigm was also provided. Third, this chapter illustrated the execution of the research methodology. The purposive sampling process, as well as the data collection process through 17 semi-structured interviews, was explained in detail. Fourth, the data analysis procedure was also explained in this chapter. To analyse the data, a thematic analysis was conducted to identify all the important themes, patterns and relationships among the data, which was followed by a comprehensive narrative analysis that produced one general narrative story for the 17 groups of participants, as well as three individual narrative stories that highlighted the most interesting findings and answered the research questions. In addition, detailed justifications for conducting the narrative analysis were also included in this chapter. Fifth, the ethics of this study were discussed, highlighting that this study has gained permission from the HEC and has protected the privacy of each participant. Last but not least, this chapter listed the potential limitations and challenges identified throughout the study, pointing out that some of the challenges have been overcome during the study while the others require improvements through future research.

The next chapter will present the research results of this study. Following the steps of the research methodology, the findings of the thematic analysis will be presented first. Then, the general narrative story, which is derived from the thematic analysis and configured according to the instructions by Bruner (1991) and Polkinghorne (1995), will be presented after the thematic analysis findings. Three individual narrative stories which are representative and explain the most interesting findings will also be presented in the next chapter. The three individual narrative stories not only explain the most interesting issues demonstrated by the general narrative story, but also answer the research questions in detail.

## **4 Results and Discussion**

### **4.1 Introduction**

The aim of this chapter is to show the results of the analysis and to answer the research questions of this study. Section 4.2 presents the thematic analysis findings that identify the themes from the research data. Section 4.3 presents the general narrative story that has been configured based on the thematic analysis. Following this, section 4.4 consists of three individual narrative stories which further address the issues discussed in the thematic analysis findings as well as the general narrative story, and also answer the research questions in detail. Last but not least, a brief summary of the chapter will be provided in section 4.5.

### **4.2 Thematic analysis findings**

The thematic analysis findings are presented under six broad categories, namely, self-efficacy, optimism, hope, psychological resilience, organisational resilience and support received by the research participants from the government, other businesses and family members and friends. The division of the categories is based on the research questions, the design of the interview questions and the thematic analysis findings. In the following discussion of the thematic analysis findings, the most interesting issues that emerged from the research data, as well as the possible patterns and relationships identified among different psychological capital components and organisational resilience indicators, are discussed. The thematic analysis findings also serve as the basis for the configuration of the general narrative story in section 4.3.

#### **4.2.1 Self-efficacy**

The literature suggests that self-efficacy consists of three dimensions, namely, magnitude, strength and generality (Bandura, 1977). As discussed in Chapter 2, magnitude is the perceived degree of task difficulty that one can attain, strength is closely related to magnitude and stands for the degree of conviction of efficacy magnitude, and generality assumes that the

individual can generalise the expectation of efficacy under different circumstances. It is clear from the transcripts that almost all the SME owners could take on whatever comes as a challenge, and demonstrated strong belief and confidence in their personal abilities. Self-efficacy was demonstrated in this study by the perceived confidence of the research participants in their ability to perform a specific task or get through a specific challenge. Self-efficacy as a psychological capital component was identified in 15 out of the 17 interviews. The quote below shows how the tourism SME owners and managers demonstrated the three dimensions of self-efficacy.

*“...Yeah, I believe in myself, absolutely [self-efficacy] ...I’m very ambitious [strength], and I like to feel that I’m in control of what I do and what I can do [magnitude]. If I almost dream on something that I want to do, and generally [generality], I will make them happen [strength] ...”* (Participants 14, owner-operator, mother and son)

Next, this section discusses the sub-themes extracted from the interview transcripts in relation to the self-efficacy of the tourism SME owners and managers. First, different coping mechanisms used by participants who displayed strong or weak self-efficacy are discussed in section 4.2.1.1. Second, how the owners and managers who displayed strong self-efficacy were likely to transfer their self-efficacy into the leadership capacity of their business is explained in section 4.2.1.2. The third sub-theme identified in this section is about how the owners and managers who displayed strong self-efficacy were likely to increase the innovation and creativity capacity of their business. This theme will be discussed in section 4.2.1.3.

#### **4.2.1.1 “Self-efficacy: coping mechanism”**

First, it was found that the owners and managers who demonstrated self-efficacy recovered from the 2016 Kaikoura earthquake using different types of coping mechanisms. Drawing from Chapter 2, there are two broad categories of coping mechanism, namely, problem-focused coping and emotion-focused coping. Problem-focused coping focuses on the problem itself and removes or circumvents the source of stress. In contrast, emotion-focused coping focuses on the emotional distress caused by adverse events, and reduces or eliminates the emotional distress. More importantly, self-efficacy seemed to positively regulate human

emotion, which is supported by previous studies (e.g., Heuven, Bakker, Schaufeli, & Huisman, 2006). Drawing from the literature, it is not surprising that participants who have shown strong confidence in their personal ability could regulate their emotions more effectively, thus using more problem-focused coping mechanisms rather than emotion-focused coping mechanisms. The quote presented below is an example of how the owners and managers who demonstrated strong self-efficacy used problem-focused coping mechanism in the recovery phase:

*“...So, we are very strong [strength] and say, ‘this is what we want to achieve’ [self-efficacy], and ‘what are the barriers that prevent us from getting there’, ‘how do we remove those barriers’, and then, [persevere]...I guess you struggle your shoulder and go, well, what’s my plan now? I need to come with all the plans to deal with it [problem-focused]. So, I guess you could probably say, um, how do I deal with things that I cannot control? I look at the impact of that, and then I make changes, and I adapt my situation to deal with it [problem-focused]” (Participant 10, general manager)”*

Participants who showed a low level of self-efficacy were found to use more emotion-focused coping mechanisms to help them recover psychologically. As discussed previously, the people who demonstrated strong self-efficacy could regulate their emotions better, while the people with weaker self-efficacy were less likely to regulate their emotions. For example:

*“...It very much depends on the mental state when I get that challenge. If I’m low for any reason, I probably find the challenge quite defeating. Um, and it will take me time to accept the challenge...It’s just the time span and also the psychological wellbeing inside.”*  
(Participant 13, owner-operator)

As a result, owners and managers who did not display much confidence in their task-completing ability were found to use emotional coping mechanisms such as positive thinking, emotional support and avoidance. For example, the following quote illustrates how people who displayed lower level of self-efficacy in the face of the earthquake coped with the challenges and emotional distress:

*“I think if the business wasn't such as good business before the earthquake, then I don't think I'd had the energy to go along with it [self-efficacy] ...I didn't feel that my*

*psychological state was completely under control after the earthquake. I was very exhausted, and I was monitoring and I was aware...but, I didn't feel like I had control on it [weaker self-efficacy]. I always felt that it was just something that needed time, and that I had to be easy on myself and look after myself to get through it [emotion-focused coping].” (Participant 15, owner-operator)*

#### **4.2.1.2 “Self-efficacy: leadership capacity”**

Given that the research participants were all in leadership positions in their businesses, the second sub-theme emerging from the data is “self-efficacy and leadership capacity”. This section will discuss how self-efficacy, one psychological capital component identified among the research participants, could positively contribute to their businesses. It was demonstrated by many of the participants that confidence and belief in their personal ability to overcome challenges (self-efficacy) is either within themselves as an underlying personal trait, or developed from their responsibility as being the leader of their business. This reminds us of Paglis and Green’s (2002) proposition and study on leadership self-efficacy, or LSE. Paglis and Green (2002) suggest that when combined with self-efficacy, a leader who demonstrates this psychological capital dimension “has the judgement that they can successfully exert leadership by setting a direction for the work group, building relationships with followers in order to gain their commitment to change goals, and working with them to overcome obstacles to change” (p. 217). From the data, it is obvious that the participants have demonstrated such capabilities for direction-setting, gaining commitment and overcoming challenges. Drawing from Stephenson (2010) and Lee et al. (2013), this finding seems to also imply that a sound leadership enhanced by self-efficacy can contribute to the business capacity to build adaptive resilience during times of crisis. The following quote is an example of how a general manager of a luxury accommodation business showed LSE:

*“...But, I guess in the role as a manager, and of the [responsibility], it’s [the ability] either in you, or it’s not [leadership self-efficacy] ...[Leadership] is probably one of the most important aspects in recovery. Because, your people are looking to you for direction [direction-setting] ...so, the role of a leader is to bring people together [commitment], and to very much charter direction going forward [direction-setting] ...I’ll be honest and say that this business would not be backed up and running [overcome challenges] if it is*



*not for what we did. This [leadership] is the reason why this business is now operating and continue to operate.” (Participant 10, general manager)*

For those entrepreneurs in the study it is interesting how the entrepreneurial trait, perseverance, has connected with the self-efficacy in the data. More importantly, the data showed that the connection between self-efficacy and entrepreneurial perseverance could possibly lead to enhanced leadership capacity. Perseverance has been found to be a personality trait of successful entrepreneurs, and is also found to be implied and enhanced through self-efficacy of entrepreneurs (Sexton & Bowman, 1985; St-Jean & Audet, 2012). In this research, most of the entrepreneurs who have demonstrated self-efficacy through magnitude, strength and generality were found to strongly believe in their personal ability to overcome the challenges brought about by the 2016 Kaikoura earthquake. Thus, it was less likely that they chose to give up. Rather, they persevered to overcome challenges, moved forward, and continuously provided good management and decision making during the post-quake period. An example of how entrepreneurs demonstrated the above finding is provided by the following quote:

*“As the owner and operator of this business, if I hadn’t got a good head space, or not got the ability to move forward [self-efficacy], it’s not helping (the business). And, we went through the difficulties [overcome challenge] quickly. And, some business did give up [perseverance] ...So, you should have a total understanding of the whole thing, really ...and I make [decisions] almost immediately [adaptive capacity], within 24 hours.”*  
(Participant 9, owner-operator)

#### **4.2.1.3 “Self-efficacy: innovation and creativity”**

The third sub-theme that emerged from the data analysis is how the self-efficacy of SME owners and managers contributed to the innovation and creativity capacity of their businesses. The data suggested that the owners and managers who could complete difficult tasks, had the conviction to manage the tasks, and could generalise their ability to manage different tasks in different situations were more likely to generate innovative and creative business idea during a time of crisis. It has been suggested that creativity at work is more than doing things in a different way. Creativity requires people to facilitate the business process in a new way or to

improve an end product under appropriate and actionable ideas (Ahlin, Drnovsek, & Hisrich, 2014). There are also previous studies demonstrating that the self-efficacy of entrepreneurs can predict a higher level of creativity (e.g., Ahlin et al., 2014). Drawing from the previous theme discussed in section 4.2.1.2, it is also reasonable to say that perseverance encouraged the owners and managers to continuously think of new paths for the business in the recovery period. What's more, these owners and managers could effectively exercise innovative ideas and introduce new business strategies post-disaster regardless of the obstacles along the way. For example, Participants 8 (couple, paired interview) strongly believed in their personal ability to overcome the challenges. They were also able to generalise this belief under different circumstances. This was because that they are originally from the UK, and they had no family members in New Zealand, so they had to deal with everything by themselves. However, as indicated by other interview transcripts, innovative and creative business ideas came out as a result of strong self-efficacy as well as perseverance. Being confident about their personal ability, the couple continuously thought of new business ideas that would save the business and provide future income. The following quote illustrates this idea:

*“...We are quite used to just being the two of us and being able to deal with any situation [self-efficacy, generality], because we have to ...we put on a beer festival here in March, the ‘Kegkoura’ [innovation and creativity], mainly to attract people to town. We had everything going against us that day, but we managed to do it greatly [self-efficacy, perseverance] ...Everybody gave great feedback, they said they really looking forward to we doing it again next year, and we will do it every year from now on to make it an attraction to get people come into town.”* (Participants 8, owner-operator, couple)

Being one of the components of adaptive capacity as well as one of the indicators of organisational resilience, innovation and creativity means that new ideas are recognised as key to the future performance of a business (Stephenson, 2010). In addition, according to Lee et al. (2013), the first order adaptive capacity of a business means that it can respond or recover from adverse situations using existing capabilities. However, when the existing capabilities fail to meet the requirements of a changing environment, a second order adaptive capacity is displayed when the business can create new capabilities to respond to the changing environment. Combining the literature and this sub-theme that emerged from the research data, it is reasonable to say that the “new capability” can be regarded as innovation and creativity in forming new business strategies during a post-quake period. This capacity

allowed the businesses to be more adaptive in an ever-changing environment, and at the same time increased the possibility for them to perform even better using newly-formed strategies. Thus, it is reasonable to argue that innovation and creativity capacity is of vital importance for an organisation to recover and even thrive after natural disasters. In addition, as discussed in Chapter 2, innovation and creativity is considered to be an important component of an organisation's adaptive capacity and one of the indicators of organisational resilience (Lee et al., 2013). SME owners and managers in this research who displayed self-efficacy used innovative business ideas as part of the recovery process of their business. In this way, it can be argued that the participants who were able to enhance the innovation and creativity capacity of their businesses through strong self-efficacy are likely to also contribute to the adaptive resilience of their business in the long run.

#### **4.2.2 Optimism**

Optimism is the second component of psychological capital and is discussed in this section. According to the literature, optimism refers to holding positive expectations for the future (Carver et al., 2010). In addition, Luthans et al. (2007) propose that optimism also means to recognise and explain the reasons and causes of the possible outcomes in an optimistic explanatory way. The explanatory style also applies to how optimistic people interpret unfavourable situations. Youssef and Luthans (2007) suggest that normally optimistic people will attribute a negative situation to external and temporary causes. During the interviews, 15 out of the 17 groups of participants showed optimism, and the following quote is provided to illustrate how optimism is identified and coded from the interview transcripts:

*"I think I'm a very [optimistic] person, very [optimistic]. I always look for the positive things in life [positive outlook] ...The earthquake, it's not in my control [external], 7.8, it was the biggest one I've experienced. Well, what happens happens, life goes on [positive outlook]"* (Participant 1, owner-operator)

Therefore, this section discusses the sub-themes that emerged after analysing the interview transcripts and codes for optimism. First, optimism was identified as being closely linked to the venture creation intention of the research participants, and this sub-theme is discussed in section 4.2.2.1. Second, specific coping mechanisms associated with optimism are discussed

in section 4.2.2.2. The discussion shows that optimistic participants tended to use specific coping mechanisms and demonstrated positive emotions. This suggests that through specific coping mechanisms, the participants might have the potential to transfer the psychological capital component of optimism into a positive outcome for business performance. Third, it becomes clear in section 4.2.2.3 that it is possible for these tourism SME owners and managers to contribute to the adaptive capacity of their businesses through realistic optimism.

#### **4.2.2.1 “Optimism: venture creation intention”**

As supported by previous research, it also emerged from the research data that optimism seemed to be strongly related to an entrepreneur’s venture creation intention (e.g., Casson, 2005; Trevelyan, 2008). This sub-theme is considered to be of vital importance because the majority of the research participants are business owners who have gone through the entrepreneurial process and have been operating their own businesses. Many of the SME owners in the present research expressed that the major positive event in their life was associated with the creation of their business. Two quotes are selected to explain the above sub-theme:

*“Yeah, I am [optimistic]. Otherwise, I probably wouldn't have owned my own business anyway [entrepreneurial intention].”* (Participant 12, owner-operator)

*“Oh, well...the biggest positive event, I think...was moving down here (to establish the business) [entrepreneurial intention] ...Yeah, it was a very positive thing, a major decision. And, I just had been at a crossroad in my life (before starting my own business). And, my son found this block of land and (say), ‘see, mother, you should come down and build a bed and breakfast’, you know. Enjoy it...and, anyway, I did, and it really was a really positive move [optimism].”* (Participant 4, owner-operator)

The relationship between optimism and entrepreneurs and SME owner-managers can be found in a great number of previous studies. Generally, studies have shown that optimism is one of the necessary and sufficient conditions that enables venture creation (e.g., Casson, 2005; Trevelyan, 2008). This is in congruence with the sub-theme identified in this study.

Scholars believe that it is the optimism within entrepreneurs that motivates them to compete for limited resources that may otherwise be taken by others (Casson, 2005).

#### **4.2.2.2 “Optimism: coping mechanisms”**

It was shown by the research data that specific coping mechanisms used by tourism SME owners and managers, namely, positive thinking and rational thinking, were strongly related to optimism. The literature suggests that when faced with change, employees must make optimistic attributions of things and have a positive attitude towards the future, and this is important for people to accept and also implement change (Avey et al., 2008). Drawing from Avey et al. (2008), people who possess positive psychological capital are more likely to show positive emotions in the workplace, and positive emotions can contribute to the attitudes and behaviours relevant to positive organisational change. This is one example of how positive psychological capital can be transferred to a higher level and contribute to business performance. Although Avey et al. (2008) focus on the employees rather than the owners or managers, his proposition can be expanded and applied to the present research. More importantly, it was found from the interview transcripts that optimistic participants were very likely to use coping mechanisms, such as positive thinking and rational thinking, through which positive emotions were demonstrated. Positive thinking was demonstrated by some SME owners and managers in a way that they perceived any progress during the business recovery as a good sign that encouraged local spirit. Also, some people may see the uncertainty of road status and the road recovery as the biggest problem for Kaikoura to bounce back from the earthquake, whereas some business owners and managers held a positive belief that any progress on the road could mean an upgrade to the infrastructure compared to what the road was like before the earthquake. For example, because of optimism, one accommodation owner believed that apart from the damage to the township, the 2016 Kaikoura earthquake was good publicity for Kaikoura, because more people all over the world would know about this small town. Another SME owner believed that one should always see the positive side in everything, because business opportunities lay in those positive sides. The following quote demonstrates how positive thinking as a coping mechanism was displayed by the optimistic participants:

*“For me, [optimism] means going forward and seeing changes for the better [positive thinking] ...Especially, the road project, they are dedicating extra money to it. And, I see that as a good thing [positive thinking]. They are putting in cycle lanes as well, that’s gonna be a drawcard for people to come in as well [positive thinking]. The road around there was dangerous before the earthquake, and, we’ve put up with it for so long. But, this earthquake has brought it to everyone’s attention, it should be a safer road now.”*  
(Participant 9, owner-operator)

Apart from positive thinking, optimistic participants also tended to use rational thinking as another coping mechanism. Generally, all the participants have demonstrated their ability to think rationally in the face of the earthquake. Through rational thinking, the owners and managers were likely to regulate their emotions, which is supported by Folkman and Lazarus (1985). Also, rational thinking enabled them to step back from the negative situation and take an objective view (Prayag, 2016). Some participants thought of other people who had experienced more difficulties than they did, or thought about worse events and what these events “could have done” to the town and the business. These rational thoughts made them feel better about the reality. Some participants took a step back to suggest that every negative thing happened for a reason. Some participants could connect their situation with Maslow’s theory, and recognised that as long as safety, the most important concern during an adverse event, was not harmed then one could not be bothered for too long. Therefore, optimism enabled these research participants to think in a rational way, to accept the truth about the earthquake, to look at the positive side of the earthquake, to recognise any progress during the recovery period, and to be objective when facing the negative consequences of the earthquake. Rational thinking demonstrated by these optimistic participants is thus presented in the following quotes:

*“I mean, there’s other people, you know their houses were damaged [rational thinking] ...but for us, personally, the only issue is the road being closed ...It’s more just financial problems here. Like, psychologically, we are both, mentally alright with it. It doesn’t bother us, we were lucky in that way [optimism].”* (Participants 8, owner-operator, husband and wife)

*“I figure that the things happen for a reason [rational thinking]. Like the earthquake, just shocked us all out ...I like to look at them [the adverse events] as challenges rather than*

*reasons to excuse us and to give up. So, no, I've been pretty lucky, really [increased optimism].*" (Participant 4, owner-operator)

It can be argued that optimism can be capitalised on by tourism SME owners and managers through positive thinking and rational thinking, because they could see the positive side of the negative event, and perceived the change as an opportunity rather than as "an excuse to give up". The participants showed positive emotions through the coping mechanisms discussed above, which is surprising and inspiring to see in a recovery period. Drawing from Youssef and Luthans (2007) who have integrated past studies on psychological capital, the positivity shown in people can broaden their problem-solving skills and adaptive capacities. Thus, the positive emotions associated with optimism in this research are likely to enhance the "thought-action" process, as mentioned by Youssef and Luthans (2007, p. 781). This "thought-action" process can thus potentially contribute to how the SME owners and managers enhance business performance in a post-quake time. The following quote by Participant 12, an accommodation business owner, highlights how this "thought-action" process can potentially be achieved in the post-quake period:

*"Always see the positive side on everything. Um, because especially in business, the positives are where your money is. If something is positive, it means there's a way to make money in it. Um, the earthquake provided us with a way to make money, believe it or not. It cost us a lot of money, but there are also ways to make money, inside. It's the earthquake, with its repairs, that is gonna stabilise our growth. And, there is the opportunity to make money. More people coming in because of the accommodation rebuild process, so, you need food, you need accommodation. So, there's the opportunity."*  
(Participant 12, owner-operator)

#### **4.2.2.3 "Optimism: realistic optimism"**

Next, the third sub-theme of optimism shows how the tourism SME owners and managers who have demonstrated realistic optimism could possibly contribute to the post-quake business recovery, and more importantly, the adaptive resilience of the business.

Shepperd, Waters, Weinstein, and Klein (2015) conclude that unrealistic optimism can lead to misplaced psychological hope and disappointment when the outcome of the event falls short of people's expectations. When looking at the entrepreneurship literature, some studies have also shown that SME owner-managers and entrepreneurs are often highly optimistic, which may not result in beneficial business outcomes. The term "dispositional optimism" and "over-optimistic" are often associated with entrepreneurs (e.g., Hmieleski & Baron, 2009; Ucbasaran et al., 2010). According to Hmieleski and Baron (2009), entrepreneurs generally tend to expect positive outcomes without justifying such expectations rationally, which is termed dispositional optimism. In addition, Ucbasaran et al. (2010) argue that they are more likely to suffer from optimism bias because they are over-optimistic. Drawing from section 4.2.2.1, optimism is one of the sufficient and necessary conditions for the venture creation process, and given that most of the research participants have displayed optimism in their interviews, it becomes important for this study to identify whether or not optimism becomes harmful to organisational resilience. Surprisingly, among the 17 interview transcripts, no over-optimistic arguments were found. In general, the tourism SME owners and managers knew how to "moderate" their optimism in the face of adverse events like the 2016 Kaikoura earthquake. In the interview, the first question about optimism is "if there is a scale, from 1 to 10, where do you put your optimism" (see Appendix 7.1). All the participants have quantified their perceived optimism on the scale as being over 5, and five groups of participants even put their optimism at 9 or above 9. They believed that optimism is absolutely beneficial for both personal recovery and business recovery. However, through their answers to the interview questions about optimism, it was found that realistic optimism is the term that better described their beliefs. By being optimistic and realistic at the same time, the participants would not easily feel overwhelmed when things did not live up to their expectations. What's more, it is also found from the research data that some SME owners and managers were able to adjust their expectations for the future in order to feel more comfortable if difficulties arose. The following quotes are thus selected to illustrate the above arguments:

*"...As we have to be [optimistic], but very reserved...You have to be cautious in spending and things like that. So, you have to almost [moderate] your optimism [realistic optimism]. Because, if we were 100% optimistic and spend everything we could on advertising, it would not be the best way...We had the seasons where the conditions weren't very good, and, we've always known that could happen again [situation*



*monitoring and reporting], so, we don't take big risks. And, I think that sorts of helped us."*  
(Participant 15, owner-operator)

*"...So, optimism for me is being positive, but also being [realistic] at the same time. Not always being happy about 'well, you should be alright', but being [realistic]. We are not that type of people that we will keep going to something and then ignoring all the impacts along the way [situation awareness]. We have an emergency plan for here, which we've always had well before the earthquake [planning strategies]. But at the same time, we are very [aware] that you need to alter our plan to alter things, depending on what's going on [situation monitoring and reporting]."* (Participant 10, general manager)

Drawing from the quotes, tourism SME owners and managers who were able to "moderate" their optimism in the face of challenge were more likely to be aware of the uncertainties along the way. This was shown by the situation awareness of the owners who were always vigilant about the internal and external environment of their businesses. In addition, both quotes show that realistic optimism is closely associated with the business culture, which valued learning from past problems. Drawing from Stephenson (2010), these arguments all suggest that the businesses possessed the capability of internal and external situation monitoring and reporting. Therefore, it is not surprising that these businesses were more adaptive to changes because of stronger adaptive capacity and rapid decision making by the decision-maker (i.e., owner-operator or manager in this research). In addition, it also becomes clear from the quotes that participants who have displayed realistic optimism were likely to be aware of the changing environment and knew when to adapt strategies to those changes. Thus, it is reasonable to conclude that participants who have displayed this realistic optimism have the ability to enhance the adaptive resilience of their businesses through enhanced situation awareness capacity. Schneider (2001) suggests that realistic optimism means not only maintaining a positive outlook but also being optimistic within the constraints of the physical and social world. This seems to describe what the research participants mean by realistic optimism. It is also worth noting that another indicator for organisational resilience, planning strategy, is identified from the second quote. However, Participant 10 later said in the interview that the final detail of the emergency plan did not exist, even though the broad idea of the emergency plan was known by all the staff in the business. Therefore, not enough evidence can be found from these quotes to imply planned resilience.

### 4.2.3 Hope

This section will discuss the thematic findings under the third psychological capital component, hope. In brief, hope can be explained as the expectation to attain a desired goal (Tong, Fredrickson, Chang, & Lim, 2010). However, Snyder (2002) defines hope as the perceived ability of an individual to find pathways to complete goals, and to have the motivation to use those pathways. Three components of hope were already discussed earlier, namely, goal, pathway and agency thinking. For a quick review of these three components, goal stands for the guiding assumption and the cognitive component of hope theory, pathway refers to the means to meet goals, and agency thinking is the self-determination of completing a specific goal, which is also the motivational component of hope. According to Luthans (2002), being a psychological capital component, hope is the most unique positive organisation behaviour capacity. It is the duality of agency-thinking (willpower) and pathway (way power) in hope that sets apart hope, as a component of psychological capital, from the common meaning of the term. Supported by the literature, it was found by this study that the willpower, demonstrated by strong agency-thinking to reach a specific goal, and the way power, demonstrated by the ability to find pathways and alternative pathways, were how the SME owners and managers capitalised on hope. As hope consists of three important components, the research data which demonstrated hope was coded by “goal”, “pathway” and “agency-thinking”. Among the 17 interview transcripts, hope was identified in 15 transcripts. For example:

*“Absolutely [agency-thinking, strong self-determination in control of my destiny]. Myself and my husband are very organised people, we’ll go on beyond the duty when we had to...to make things happen [pathway]. And, generally, if I almost dream on something that I want to do [goal], and generally, it happens.”* (Participants 14, owner-operator, mother and son)

This part of the thematic analysis findings presents the sub-themes from analysing hope among the tourism SME owners and managers. It discusses whether and how hope as one component of psychological capital contributes organisational resilience. Section 4.2.3.1 discusses the first sub-theme identified, and suggests that tourism SME owners and managers who displayed hope could plan for their business in advance and help the business adapt along the way. Another sub-theme associated with hope is then discussed in section 4.2.3.2,

and illustrates how psychological capital hope demonstrated by the participants could contribute to the innovation and creativity capacity of the business, which might eventually enhance the adaptive resilience of the business.

#### **4.2.3.1 “Hope: plan in advance and adapt along the way”**

Some participants demonstrated strong hope as they were used to setting their personal and business goals, were able to proactively find alternative pathways to reach the goals, and were strongly determined in achieving those goals and adapting all the way through. Drawing from Luthans (2002), hope can be indirectly or directly related to leadership effectiveness and employee performance. First, it was obvious from the interview transcripts that goal setting was an essential premise for developing hope, which is supported by Luthans et al. (2007). By having the business goal in mind, the SME owners and managers could have a general picture of what they wanted to achieve for the business within a set time period. More importantly, this also implied that specific goals enabled them to plan for strategies within the time period. Second, once the goal and the plan were set, the SME owners and managers started to think about the path as well as alternative paths to get to the desired goal, because they were consciously aware of all the changes and difficulties along the way. So, it was important for them to adapt both themselves and their businesses to achieve the goal.

The following quote is selected to represent this sub-theme. This quote not only demonstrates personal adaptiveness, but also the adaptive capacity of the business facilitated by the participants themselves. The participants needed to adapt to changes and cope with difficulties, both personally and from a business perspective, along the way. By doing so, they could work out pathways to achieve the desired goals. It also appears in the quote that once the goal and the pathway were set, SME owners and managers had strong self-determination in working towards the goal, which is expressed by the word “persevere”. Because of persevering along the way, they were likely to achieve the desired goals. From the quote below, it is also reasonable to argue that it is because of perseverance that the owners and managers could continuously adapt themselves and their businesses to the changing environment.

*“...If you got your [goal] in mind, and you need to know where you want to go, you assess everything along, and you [adapt] yourself personally and the business to get there [adaptive capacity]. Both my wife and I are [goal] setting people. We set goals about what we want to achieve in three or five years. And then, we persevere [agency], keep the big goal in mind. We [think about] what is the path to get there [pathway], what are the barriers that prevent us from getting there, and how do we remove those barriers.”*  
(Participant 10, general manager)

Drawing from Hmieleski and Carr (2008), hope has been viewed by some scholars as being a coping mechanism that helps people come through challenges and difficulties. When thinking in the post-disaster context, the finding in the present research seems to go one step further and suggests that hope itself can motivate SME owners and managers to make strategies according to their goal (the premise of hope), and to transfer the way power in hope (pathway) into adaptive capacity of their businesses with the motivation from the willpower in hope (agency thinking). For example, the above quote shows that Participant 10 has set three to five-year goals and planned what he wanted to achieve and where he wanted to go. In order to achieve the goals, he also needed to find pathways and adapt along the way to modify the pathways according to the changing environment. This finding holds true for the other participants who have demonstrated strong hope. Thus, with adaptive capacity being one aspect of organisational resilience, this theme seems to suggest that tourism SME owners' and managers' hope is likely to also contribute to the adaptive resilience of their business.

#### **4.2.3.2 “Hope: innovation and creativity in alternative pathways”**

It also emerged from the research data that pathway, the second component of hope theory proposed by Snyder (2002), was of great importance when thinking of the tourism business recovery in Kaikoura. Tourism SME owners and managers who demonstrated hope in their interviews were found to effectively come up with innovative strategies, innovative products, and even innovative business models during the business recovery. These innovation and creativity capacities resulted from actively seeking alternative pathways for the business. This implied that an organisational culture that embraced innovation and creativity was formed, regardless of the comparably smaller business size.

Interestingly, some of the participants were not quite aware of their contributing role in facilitating innovation and creativity in their business process. As most participants own or operate tourism accommodation and tourism activity businesses, these owners and managers have often perceived that the specific industry they were in did not traditionally require innovation and creativity. In fact, it was found from the research data that most of the participants have continuously been creative and innovative in their daily business operation without being aware of what they have brought to the business. For example, one tourism accommodation business owner modestly admitted that she was not creative enough to make changes. However, with her goal being “to make customers comfortable”, she has been constantly changing the pathways to achieve her goal. For instance, she has taken every piece of customer feedback into consideration, and has adapted to all the changing requirements for her business to stand out. Another example would be a tourism accommodation business that is owned by three siblings. The owner perceived himself and his business as not being creative enough. However, it then emerged during the interview that he actually tried to promote his business through several different marketing platforms that he had not been engaged with pre-disaster. More importantly, because almost all the staff left after the 2016 Kaikoura earthquake, the owner did not stop fighting to achieve his business goals. Instead, he creatively changed his roles and his siblings’ roles, learned to do all kinds of work that he would have never dreamt of doing, and also encouraged job rotation among the three owners in order to familiarise themselves with every business process that was once only carried out by their staff.

Another example that demonstrates how innovation and creativity capacity was facilitated by hope is presented below. Participants 8 (couple, paired interview) had their business goal of not only continuing to install an escape room, a bar and a brewery, along with their mini golf course, they also had the goal of attracting more and more tourists to town and introduce their business to the public. The earthquake has caused a dramatic decline in tourist numbers, so in order to attain their goal they had to find an alternative pathway to attract people. As discussed in the quote, they tried to hold a craft beer festival and were trying to make it an annual event. This event was an innovation to the business and also an innovation for the Kaikoura township:

*“Every time we start a business, a stuff, there’s always things that don’t work. But we can always make money, you know, we’ve got skills to back up [agency thinking] ...Well,*

*especially in the after [quake period], you know that you've got to be creative [innovation and creativity]. You know, if we haven't been through that event, we probably wouldn't have put a craft beer festival on [alternative pathway]. That hopefully, you know, we will have that each year [agency thinking]. You've got to constantly be upgrading and training and...trying something new [innovation and creativity]. And, we will end up being a destination [that has] different aspects of business. Eventually we will have the escape room, a bar, a brewery and the mini golf course. At least one of those gonna be successful, and that's the [hope] for this site.” (Participants 8, owner-operator, couple)*

In this way, first, drawing from Luthans et al. (2007), the process of forming new pathways in itself indicates creativity and innovation. Second, Sweetman, Luthans, Avey, and Luthans (2011) argue that high-hope people who possess high willpower (agency thinking) and high way power (alternative pathways) can come up with pathways into the mental strategies of creative problem solving. Also, these mental strategies will then be complemented in practice, which increases their ability in creative performance. This argument is of great importance to the present study, as it also supports the finding under this sub-theme. This sub-theme thus draws upon the argument of Sweetman et al. (2011) and also extends their research. With innovation and creativity capacity being one of the indicators of adaptive resilience (e.g., Lee et al., 2013; Stephenson, 2010), it is reasonable to conclude from this section and argue that SME owners and managers who displayed the psychological capital component of hope could: (i) creatively think of alternative pathways to attain the goal for their business; (ii) motivate themselves through agency thinking; and hopefully (iii) enhance the adaptive resilience of their business through enhanced innovation and creativity capacity.

#### **4.2.4 Psychological resilience**

Finally, the sub-themes identified under the last component of psychological capital, psychological resilience, will be discussed. According to the literature, psychological resilience is defined as the capacity for an individual to rebound or bounce back from adverse events, or even bounce back from positive events (Luthans, 2002; Luthans et al., 2007). In the present study, psychological resilience was identified in all the 17 interview transcripts, although in different degrees. The following quotes are examples of how psychological resilience was identified in the interview transcripts:

*“You know, I think because we work in this tourism industry, you work with people, um, psychologically, because no one was injured, you know, we can continue living the way we were. Um, that we bounced back (from the 2016 Kaikoura earthquake) extremely quickly.”* (Participant 11, owner and general manager)

*“Because I was involved in Christchurch earthquakes...And, the 2016 Kaikoura earthquake wasn't my first big earthquake. From the Christchurch earthquakes I know that you have to be positive and look at all of the opportunities that are in front of you.”* (Participant 12, owner-operator)

In the following sections, the thematic findings of psychological resilience are presented. First, section 4.2.4.1 discusses two different viewpoints of the nature of psychological resilience identified among the interview transcripts, namely, the process view and trait view. Drawing from Chapter 2, the process view of psychological resilience holds that resilience is learned and developed through life events, while the trait view holds that resilience is an inborn trait. It was found that most participants held a process view of psychological resilience, which reflected the state-like and developable nature of psychological resilience. Second, in section 4.2.4.2, the discussion proceeds to show that the psychological resilience developed through previous experience could positively contribute to both the adaptive and planned resilience of the business. Third, section 4.2.4.3 shows that resilient owners and managers were more likely to rely on social capital in the post-quake recovery period. Fourth, section 4.2.4.4 presents that resilient owners and managers could see the 2016 Kaikoura earthquake as a catalyst to upgrade their businesses, and eventually enhance the adaptive resilience of the business through this kind of psychological resilience. The finding in section 4.2.4.4 also implies the “bouncing back” and even “transcending the equilibrium” components of psychological resilience. Fifth, resilient owners and managers used not only emotion-focused coping, but also problem-focused coping, to bounce back from the 2016 Kaikoura earthquake. Moreover, the problem-focused coping mechanisms used by resilient participants were more likely to positively contribute to their business. This is discussed in section 4.2.4.5. Last but not least, it was identified from the transcripts that SME owners and managers normally showed entrepreneurial orientation through the use of firefighting approaches instead of planning for business strategies. This means that they were more likely to emerge with a plan when the challenge actually occurred. The preference of taking a

firefighting approach by the resilient participants is discussed in section 4.2.4.6, and the implication of this finding for business adaptive resilience is also discussed.

#### **4.2.4.1 “Psychological resilience: process versus trait”**

Most participants seemed to be resilient because of the life events that they had experienced. This implies the process view of psychological resilience, which suggests that resilience is a developable capacity for people to rebound from adversities (Luthans et al., 2007). It was mentioned by some participants that the things they had gone through, especially the 2010-2011 Christchurch earthquake sequence, could certainly strengthen their psychological resilience. This resonates well with the literature, showing that previous experience with natural disasters increases personal resilience (e.g., Ferraro, 2003). The following example represents how previous experience with earthquakes can enhance the psychological resilience of the participants:

*“I’ve also gone through the Christchurch earthquake...So, I think knowing what has happened in the past and roughly what to expect and what to do, because we’ve been through it before, it did help...But most of the time, if you have experienced certain things, you can be, for instance, aware of the consequences, or whatever of actions. And, more importantly, inactions.”* (Participant 9, owner-operator)

In addition, according to the stories told by the participants, it was also found that not only the specific experience with previous earthquakes helped them to cope with the 2016 Kaikoura earthquake, previous experience with other adverse events could also develop their psychological resilience. For example:

*“My husband and I separated many, many years ago, and...that was a [major negative event]. But, after the first weeping and wailing I decided that I just got on with life and make decisions on my own [psychological resilience] ...when changes occur, like the separation and what have you, just being able to get on with life.”* (Participant 4, owner-operator)



The data also suggested that psychological resilience was closely related to an individual's upbringing. Some of the participants, mostly the entrepreneurs who own a business, emphasised the important role of their upbringing in shaping their psychological resilience. This again implies the process view of psychological resilience. Previous research has also recognised the contributing role of family in building psychological resilience (Naswall, Kuntz, Hodliffe, & Malinen, 2013). The following two quotes can explain this finding. The first quote shows the perceived developmental process of psychological resilience through learning from parents. The second quote shows the perceived developmental process of psychological resilience through being a part of large families:

*“Well, it’s probably, [developed]...well, it’s probably...[upbringing]. I’d say that my parents were both quite resilient and that’s probably why I am...Yeah, my dad’s very...practical and knows how to fix a problem, and my mum’s not very emotional (laugh)...So, I probably got it from both of them.”* (Participants 8, owner-operator, couple)

*“Well, both myself and my husband come from big families, so, we have to be resilient in our families (laugh)...you have to find your way through. So, I suppose that was building up as from childhood, really. As to...where we stood in the family, basically.”* (Participants 14, owner-operator, mother and son)

One interesting finding came from the Participants 11 (paired) interview. Participants 11 are the general manager and the owner of a fishing business who took the interview in a pair. They were found to be extremely resilient as they almost immediately bounced back from the earthquake. Throughout the interview, they responded as if the earthquake had not negatively influenced their psychological states at all. The general manager even perceived the earthquake as something similar to a challenge that they have experienced on a daily basis. Once again, their answers demonstrated the above argument that psychological resilience can be developed through life events:

*“The very nature of what we do, you know, we are tourism business, so, on a daily basis, we are dealing with clients from many different nationalities, um, disabilities, sea conditions, you know, the general weather. We are dealing with that all the time. So, although the earthquake came along and it was significant, um, for us, other than*

*obviously being unable to operate for six weeks and the loss of income, that wasn't necessarily a difficult thing for us to do.”* (Participants 11, general manager and owner)

In addition, it was also interesting to see that psychological resilience seemed to increase with age in general. The research data showed that the older participants were more resilient than the younger participants when facing the earthquake. This finding reminds us of the study by Seplaki et al. (2006), which also shows that older people appear to be more resilient than younger people, and are less likely to experience increasing depressive symptoms after earthquakes. It is hard to draw any conclusion at this stage, as Seplaki et al. (2006) consider that the questions raised from their study cannot be easily answered. However, it is reasonable to assume that factors such as improved coping styles develop over time and may underlie the stronger psychological resilience of the elderly, as supported by Seplaki et al. (2006). This again implies that psychological resilience can be developed through time.

*“...But, I think, what you’ve been used to and your experience will definitely alter through your age. I think...definitely what you’ve been exposed to has something to do with your resilience...So, there are always times that throughout our year where the things like the weather, place of factor, disruptions, travel, you know, and all of those things that we’ve experienced with the earthquake...”* (Participant 15, owner-operator)

However, two participants suggested that psychological resilience was an inborn trait. One general manager believed that he was not a “panicker” from his “DNA”, and another business owner expressed that the resilience within him was an “inborn and family thing”. Interestingly, the only two participants who held this viewpoint share some commonalities. These two participants operated rather larger businesses than the other participants. Being in the leadership role in their businesses, the psychological resilience within them positively enhanced their leadership competency, as supported by King and Rothstein (2010). The following quote illustrates this finding:

*“So, from a resilience perspective, it is part of our DNA that we are not panickers...I do not believe that it is something that you can teach someone. It is about how you were built. You are either...not saying you are a panicker, but you are someone that will see a situation, and will assess it very quickly...make a decision, and move. So, that’s about,*

*that is about resilience. And, some people, you know, not criticism on people, but, [they] can't deal with that, it's hard for them to deal with.*" (Participant 10, general manager)

#### **4.2.4.2 "Psychological resilience: the importance of previous experience"**

It is supported by Ferraro (2003) that people who have previously experienced natural disasters are found to be more resilient than those who have not. As previously discussed in section 4.2.4.1, psychological resilience can be enhanced by previous experience in similar events, and it was also found that previous experience could help tourism SME owners and managers cope with new challenges. Participants who have experienced the 2010-2011 earthquake sequence in Christchurch generally expressed that this previous experience helped them in coping with the 2016 Kaikoura earthquake. More often, these owners and managers knew what to expect from the earthquake, were more prepared and had feasible plans in place for the earthquake, and knew what to do in the face of the earthquake, as illustrated by the research data. One quote is provided accordingly:

*"In terms of things happening like earthquakes and fires etc., we have plans in place for that [planning strategies]. With the earthquake, my owner actually lost one of her hostels in the Christchurch earthquake...She spent four years going through the process of cleaning that up, then getting the insurance and moving on for her life [previous experience]. And then, one day, she just bought another one, and kept going. So, we are very aware [situation awareness] of what's gonna happen [because of the earthquake]."*  
(Participant 7, general manager)

From the entrepreneurship perspective, as suggested by Ayala and Manzano (2014), resilience can be seen to be the result of the interaction between entrepreneurs and the surrounding environment. This argument seems to resonate with the present research, and together suggests that not only does previous interaction with the environment (i.e., previous experience in facing earthquakes in this research) enhance personal resilience, the participants can also capitalise on this resilience and effectively facilitate business performance. The above quote seems to suggest that tourism SME owners and managers who have previous experience in dealing with earthquakes were more resilient and would invest more in the organisation's planning process. In addition, they tended to have more situation

awareness, which could possibly contribute to the adaptive capacity of their business. This implies that resilient tourism SME owners and managers who have been through previous earthquakes were more likely to invest in both adaptive resilience and planned resilience of their business. According to the literature, planning strategies and situation awareness capacity are key components that contribute to organisational resilience (e.g., McManus, 2008; Stephenson, 2010). Thus, it is possible that there are positive relationships between psychological resilience, business adaptive resilience and business planned resilience.

Most of the participants in the research have expressed that their previous experience with either the 2010-2011 Christchurch earthquakes or other adverse events helped them build their psychological resilience. However, a few participants who have not experienced any previous earthquakes or other adverse events were less likely to make rapid and sound decisions. They were also found to be less aware of the changing situation, and their businesses demonstrated less proactive postures in the face of the earthquake. Unsurprisingly, their businesses suffered more than other businesses. This finding seems to suggest that the organisational resilience could have been impacted as a result of insufficient planning and adaptive capacity. The following quote from Participant 13, an owner of a new tourism business who had no previous experience in facing earthquakes, exemplifies this finding:

*“...But, from an income perspective, our income is below 20% of what it was a year before. Probably 2/3 of our income happens between the middle of November and February. And, we lost nearly half of that. And, the rest of the period, we only run about 40% of the year before. Now, we’ve down to 10% of the year before.”* (Participant 13, owner-operator)

#### **4.2.4.3 “Psychological resilience: social capital”**

The third sub-theme of psychological resilience is now discussed in this section. As suggested by Aldrich (2012) and others (Ozanne & Ozanne, 2016), social capital is the networks and resources built through connections to others and it is beneficial for post-disaster recovery. It is indicated by the research data that participants who displayed stronger psychological resilience relied on coping mechanisms such as social referencing, social support from family, friends and co-workers, and doing things for others. More importantly,

most participants who utilised the above coping mechanisms seemed to be effective at establishing business partnerships and valued the importance of building networks. In this way, the results seem to suggest that social capital is an important contributor to the psychological resilience of SME owners and managers. The following quote provides a good example to illustrate this finding:

*“I do have some very good mentors, and people who I talk to...well, not much business mentors, that he’s a very successful business man, and he has been able to teach me through things [social referencing, process view of resilience] ...so, I tried to surround myself with the people who were positive [social support], and could see, you know, that life is a very, very long tunnel. But, if you could see that something happens and comes closer, and that’s what’s been happening...you go out and you help other people...By [doing something for somebody else], that helps you to recover [resilience] ...Because I shop locally most of the time, so, I try to get most of my suppliers locally. I’ve got a really good relationship with the local business people [networks]...It’s (the business) been resilient [organisational resilience], because we had a lot of help [network].”*  
(Participant 4, owner-operator)

In contrast, participants who were found to be less psychologically resilient were also inactive in building networks and less likely to rely on social capital when compared to those who showed more psychological resilience. Also, the businesses they operated displayed a much slower recovery process when compared to the businesses operated by the owners and managers who possessed stronger social capital. The following quote is an example of the contrary finding. However, the different situation explained here might have been influenced by another force, and this is further discussed in section 4.2.6.

*“...When something happens, it could hit me quite hard. I can become quite depressed [psychological resilience] ... The local businesses don’t work together [social capital] ... And, we probably will be closing the business down as soon as I can get a job on the roads.”* (Participant 13, owner-operator)

As suggested in previous studies on organisational resilience, in the same way that a telecommunications network relies on an electricity network, resilience cannot be achieved by any business acting in isolation. Therefore, effective business partnerships and networks

are critical capabilities informing organisational resilience (Seville et al., 2006). Hence, it can be argued that there seemed to be relationships between psychological resilience, social capital and organisational resilience as illustrated in the above quotes.

#### **4.2.4.4 “Psychological resilience: see the earthquake as a catalyst to upgrade the business”**

The fourth sub-theme identified under psychological resilience was that resilient tourism SME owners and managers could view the earthquake from a unique angle, and could see it as a catalyst to upgrade their business. Not only did these owners bounce back from the negative psychological influence of the earthquake and persevere to support their business, but they also proactively found new paths for the business during the business recovery.

When referring back to the literature, it is suggested that some small business owners can perceive the disaster as a catalyst to change the existing business model (de Veries & Hamilton, 2016). This was perfectly demonstrated by those tourism SME owners who have gone through their own entrepreneurial process. For example, based on the fact that domestic tourists were experiencing huge difficulties in getting to Kaikoura, one SME owner changed the target market of his business and attracted Chinese tourists who were less impacted by the uncertainty of the roads to sustain revenue. One tourism activity business owner experienced huge difficulties brought about by the earthquake, because the business location was isolated as a result of geological damage. However, he did not give up operating the business. Instead, he was planning to do earthquake tours and tell the stories of his experience in the 2016 Kaikoura earthquake to the people who were able to come in the future. More importantly, previous studies have shown that successful entrepreneurs can utilise their resilience and are not easily knocked down by turmoil and adverse events. Entrepreneurial resilience enables entrepreneurs to persevere in the face of adversities and find new paths for the business rather than closing the business down (e.g., Bullough & Renko, 2013). Both the literature and the present research show that personal resilience enables the participants to persevere, continue, upgrade and even change the existing business model in the face of adverse events. It is then obvious that the rationality of the above finding lies within the following quotes:

*“No, I’ve never [knocked down by events]. I didn’t feel knocked down by the earthquake [psychological resilience]. It’s the earthquake, with its repairs, it’s also gonna stabilise our growth.” (Participant 12, owner-operator)*

*“We now realise that we have to source our customers from a different country, like, Chinese nationals. I don’t think you can call the Chinese market an emergent market anymore, you know. The New Zealand Tourism Board, for example, and that’s been going on that for about a number of years that market’s already here. They are travelling, they are travelling in greater numbers [situation awareness and adaptive capacity] ...I think because we work in this industry, you work with tourism, you work with people...we bounced back extremely quickly [psychological resilience]. By our nature, we are [resilient] ...We’ve got good ability to change [adaptive capacity], we are just meeting that [new] market [situation monitoring and reporting], and quickly establishing ourselves [adaptive capacity] ...90% of our clients now are Chinese nationals, we’ve adjusted to that.” (Participants 11, owner and general manager)*

Drawing from the data, it becomes clear that quickly bouncing back psychologically and proactively searching for new opportunities to upgrade the business could potentially result in an enhanced situation monitoring and reporting capacity of the business. Although one can argue that the small businesses have not demonstrated a formal situation monitoring and reporting process, it can be inferred from the above quote that the specific monitoring process taken by the owners and managers in small businesses still implies an enhanced adaptive capacity of the business. Also, as the second quote demonstrates, because of resilience the owners and general managers quickly bounced back from the 2016 Kaikoura earthquake and adapted themselves and their business to the newly-recognised Chinese tourist market. This seems to suggest that the resilience within these people, first, changed the business model in their mind and, when put into action, the adaptive capacity of their business was enhanced. When thinking back to the entrepreneurship literature, previous studies have shown that resilient entrepreneurs are willing to adapt to changes and take advantage of new situations (Ayala & Manzano, 2014). Given that the tourism SME owners and managers in this research established and operated their own business, and have shown adequate entrepreneurial traits, the present findings seem to support the theories in the entrepreneurship literature.

#### 4.2.4.5 “Psychological resilience: coping mechanisms”

It is then necessary to present the various coping mechanisms used by resilient SME owners and managers under this sub-theme. Drawing from the interview transcripts, almost all the participants have shown various emotion-focused coping mechanisms such as avoidance, seeking emotional support, and doing things for others. The coping mechanism used by resilient SME owners and managers was possibly one reason why they bounced back quicker. It is also suggested by the literature that resilient individuals can often use positive emotions to bounce back from negative experiences (e.g., Gloria & Steinhardt, 2016; Tugade & Fredrickson, 2004). Emotion-focused coping enabled the research participants to regulate negative emotions, thus becoming more resilient in the face of the earthquake. The following quotes present an idea of how resilient tourism SME owners and managers bounced back psychologically through emotional coping:

*“...The best solution for me, is go surfing [avoidance/repressive coping]. It almost cleans your mind, yeah. So, very good, that’s one of the best ways. The other way is socialising with people [social support]. With people, so, um, usually outside of the business, yeah.”*  
(Participant 9, owner-operator)

*“(Husband) And, while we are doing...while we are waiting, we just getting the gardens and all that done, and around [avoidance/repressive coping]. Yeah, so, that keeps us on [bounced back].”*

*“(Wife) We’ve always found something to do, keep playing something, ha ha ha...”*  
(Participants 3, couple, owner-operator)

*“...Sometimes, the worst thing you can do is not tell people how you feel and not share. Like, my brother is here at the moment, and he is kind of like a life mentor for me. So, when things are hard, I can talk to him [emotional support]. Or, I can talk to my mom and dad, you know, and some friends [emotional support]. That helps, you know. Um, sometimes, they can’t give you any advice, but you just be honest about everything that is happening and how you feel about it and anything, and at the end you think, ah, I feel better [bounced back].”* (Participant 12, owner-operator)



However, it was the ability to use problem-focused coping mechanisms that actually distinguished resilient owners and managers from those who were less resilient. After the earthquake, the stressors for the participants were earthquake damage and business recovery. Consequently, the problem-focused coping demonstrated by the resilient owners and managers was to generate active strategies to cope with the stressors. Drawing from the literature, Riley and Park (2014) conclude that problem-focused coping becomes particularly helpful under controllable conditions, while emotion-focused coping acts better under low controllability conditions. This is because resilient individuals are more likely to have a staunch acceptance of realities (Luthans et al., 2004). It was found that the resilient participants could concentrate on the problem-focused coping mechanism after having settled their anxieties and depressions, as supported by Folkman (2010). For example, the majority of the resilient participants thought themselves to be “pragmatists” and focused on the problem rather than on their emotions when adversities occurred. These participants often solved the problems associated with either the 2016 Kaikoura earthquake or other adverse events in their lives more quickly than those who did not proactively focus on the problem itself. Even though the problems associated with the 2016 Kaikoura earthquake could not be solved on an immediate basis, these participants who used problem-focused coping mechanisms were found to be less bothered by the adverse situation, and continued operating their businesses and living their life happier than those who suffered more from negative emotions. The following quotes show how the resilient tourism SME owners and managers displayed problem-focused coping in their interview:

*“...Yeah, I think pragmatic. I will make a list of things of what I should do to overcome this problem [problem-focused coping]. So, I’ll make a list, I’ll do some research online, and I’ll probably talk to people...talk to friends, yeah.”* (Participant 1, owner-operator)

*“...And, so, immediately, so...within three or four days, once the earthquake, of course, once the danger to the guests disappeared, we then turned ourselves to go ‘ok, well...it’s now the 20th of November, what do we need to do to get this business backed up and running’ [problem-focused coping].”* (Participant 10, general manager)

*“...So, to survive in a small business, you have to be very, very strong and thinking outside the square as how you gonna manage and how are you going to...make it work for you [problem-focused coping] ...”* (Participants 14, owner-operator, mother and son)

There was also evidence on how resilient participants who also utilised problem-focused coping mechanisms were more likely to positively contribute to their businesses. The researcher found that these participants were more likely to have situation awareness of both the internal and external business environment. The researcher selected two of the most representative quotes from Participants 10 and 14 to illustrate this finding:

*“...But, also in the same time, we are not that type of people that we will keep going to something and then ignoring all the impacts along the way [situation awareness] ...So, I am pragmatic, but at the same time, we are very [aware] that you need to alter your plan to alter things, depending on what’s going on.”* (Participant 10, general manager)

*“So, all our money was gone, basically...but, I’ve always kept aside (a part) ...like an instinct that we always need to be careful [situation awareness]. And, I’ve always been very good at putting the money aside and make sure that we needed it for some day [proactive posture, planning capacity]. And, I did, that’s what got us through...There’s going to be rainy days. And, the rainy day was the earthquake for us [situation awareness]. By putting that organisational resilience that I put into the business, that financially, always insuring that our cash flow was ok. That’s how we managed to survive, and that’s how we managed to keep our staff as well.”* (Participants 14, owner-operator, mother and son)

In short, the businesses of these participants have shown a higher level in the ability of both planning and adaptive capacity, with adaptive capacity more often identified from the transcripts than planning capacity.

#### **4.2.4.6 “Psychological resilience: firefighting approach of SME owners and managers”**

Another important sub-theme identified was that the psychological resilience enabled the participants to generate a firefighting approach to solve problems on a day-to-day basis. Drawing from the literature, Masten et al. (2012) suggest that personal resilience development in the workplace should focus on building resilience strengths and utilising an effective adaption process. A firefighting approach means generating immediate plans and

being adaptive in the face of change and turbulence, thus they are more likely to contribute to the adaptive resilience of the business, especially in the post-disaster period (Ates & Bititci, 2011). Previous studies have suggested that a firefighting approach and entrepreneurial orientation are more often found in an SME context (e.g., Ates & Bititci, 2011). Combining the above arguments found in the literature and this sub-theme identified from the research data, it can be reasonable to infer that psychological resilience made the tourism SME owners and managers more adaptive to the changing environment, and this adaptiveness component of their resilience was displayed through their tendency to use a firefighting approach.

Drawing from the data, it seemed that resilient owners and managers were more likely to take whatever came as a challenge and make a rapid decision according to the changes without dwelling on the problem for a long period of time. It is reasonable to say that only when a person quickly bounces back from adverse events can they start to emerge with any contingent plans. The following quotes are thus selected to illustrate this finding:

*“The key thing is, by our nature, we are [resilient] ...because we are [daily] being affected by other influences. Um, it’s not so much that we don’t have a plan in place [lack planning], it’s just that we are very happy to evolve a plan [firefighting approach]. We are quite fluent, if something comes up, we deal with it [firefighting approach]. We’ve got [good ability to change], we are just meeting that new Chinese market, and [quickly] establishing ourselves.”* (Participants 11, business owner and general manager)

*“I just stayed calm, and deal with them [the problems] one at a time ...I don’t plan for them [lack planning], but when it happens, you just deal with it as in the best way you can [firefighting approach] ...with recovery, you just got to see what is put in place, and then deal with that at the end ...We’ve sort of just got to have emergent plans [firefighting approach] ...We [the business] adapt reasonably well. We’ve had to adapt from being a cash business to being invoicing, the market went from tourists to being workers, we adjusted and adapted to the market [adaptive resilience].”* (Participant 2, owner-operator)

The contributing role of psychological resilience to the adaptive resilience of business was implied by their entrepreneurial orientation and the tendency to use a firefighting approach in strategic formation and decision making. From the above quotes, it appears that the resilient tourism SME owners and managers could capitalise on their psychological resilience, which

made them more flexible and adaptive to the changes and challenges brought about by the 2016 Kaikoura earthquake. Thus, they were more adaptive and aggressive to generate adaptive approaches to their business on a day-to-day basis in the post-quake recovery period. This can further imply that it is possible for them to capitalise on their psychological resilience to build adaptive resilience for their business in the face of natural disaster. However, it also emerged from the data that these tourism SME owners and managers were more likely to generate an emergent plan instead of having “a plan in place”. Lack of long-term planning and focusing more on emergent responses rather than planned strategies seem to have weakened the planned resilience of the business. This finding is also supported by Ates and Bititci (2011), who suggest that the underlying resilience issues of SMEs are often driven by the fact that they are used to launching themselves into change initiatives without due consideration to planning for strategies in advance.

#### **4.2.5 Organisational resilience**

After discussing all the sub-themes under different psychological capital components, this section discusses the themes identified in relation to organisational resilience. Based on the interview questions of this study, separate interview questions that emphatically discuss organisational resilience were also included in the interviews, and were asked at the end of each individual interview (see Appendix 7.1).

It is important to recall the theoretical basis for this section before discussing the detailed sub-themes extracted from the research data. As discussed in Chapter 2, this study builds on the studies of McManus (2008) and Stephenson (2010), and adopts the organisational resilience model from them to carry out the following analysis. Here it is important to address that some of the organisational resilience indicators were identified and expressed in a way that is best suited within the SME context. More importantly, the sub-themes extracted from the research seems to resonate well with the two dimensions of the planned and adaptive resilience proposed by Lee et al. (2013). This was also demonstrated by the above discussion. The first theme extracted from the interview transcripts in relation to organisational resilience is “adaptiveness and flexible to change”. The discussion below highlights the adaptive capability identified from the participating tourism SMEs. The second theme found from analysing the transcripts emerges as “lack of planning”, and discusses how the tourism SMEs

displayed inadequate planned resilience in the pre-disaster period. It is essential to highlight that this section further verifies the main findings in the previous discussion about how psychological capital enhances or weakens the resilience of the businesses.

#### **4.2.5.1 “Organisational resilience: adaptiveness and flexible to change”**

The first sub-theme extracted from the discussion about organisational resilience was named as “adaptiveness and flexible to change”. It was found that the participating SMEs were used to adapting along the way when faced with adversities. First, all the 17 businesses were able to manage and mobilise internal resources to operate after the earthquake. One example is provided in the following quote. This specific example demonstrates how the internal financial position and economic stability of the business were identified as strengths in a post-quake period, which are essential components of internal resource mobilisation as suggested by McManus (2008).

*“We may not be doing as good as we were last year, but, we are still able to run functionally above budget. And, we just absorb it a bit more, because we are large. So, being larger (compared to other businesses in Kaikoura), having a bit more money around [internal resources mobilisation] ...not saying that we are doing amazing, but, you are able to absorb costs and absorb a bad year, or I’d say 12 to 18 months, maybe.”*

(Participant 17, owner-operator)

Drawing from Stephenson (2010) and Lee et al. (2013), internal resource is one of the indicators of the organisation’s adaptive capacity, and refers to whether or not the organisation can manage and mobilise its internal resources to keep operating. The participating businesses have all, to some degree, displayed their ability to mobilise physical resources, human resources or financial resources in the post-disaster period. This seems to suggest that the adaptive capacity of the business was enhanced through the capacity of internal resources mobilisation, because internal resources mobilisation is one of the indicators of business adaptive capacity (Lee et al., 2013; Stephenson, 2010).

Second, 15 out of the 17 tourism SMEs displayed enhanced leadership capacity when facing the 2016 Kaikoura earthquake and the difficulties in the recovery phase. Being small in size,

these SMEs were more likely to rely on the sound leadership provided by business operators. Seven out of the 17 businesses either employed no one or lost all the full-time employees due to the 2016 Kaikoura earthquake. Drawing from the model proposed by Stephenson (2010) and Lee et al. (2013), it was found through 15 interview transcripts that a strong leadership which provided management, flexible and fast decision making, and continuous evaluation of the progress towards business goals played an important role in the post-quake business recovery.

*“The adaptiveness of the business is a working process, and it’s something that I am [constantly reviewing] every day [leadership - continuous evaluation].”* (Participant 12, owner-operator)

*“The staff didn’t know how it was going to change, so my husband and I did it really quickly and said, we do this, and we do this [leadership – fast decision making] ...and then they followed.”* (Participants 14, owner-operator, mother and son)

Third, innovation and creativity capacity as another indicator of the business adaptive capacity was identified from 12 out of the 17 interview transcripts. Drawing from the previous studies, innovation and creativity is also one of the indicators of adaptive capacity. However, it is not included in McManus’s (2008) original organisational resilience model, but later developed and included in the adjusted organisational resilience model (Stephenson, 2010). According to Lee et al. (2013) and Stephenson (2010), innovation and creativity refers to the capability of the business to encourage and reward staff for creative problem solving. However, considering the specific nature of the tourism SMEs participating in the present research, given that most of the businesses had no more than 10 employees, with seven businesses had no employee, it was less likely for these tourism SMEs to reward staff because of innovation and creativity. Rather, the innovation and creativity capability of the business was found to be mostly facilitated and enhanced by the business owner-operators or general managers. The tourism SMEs which embraced and enhanced innovation and creativity capacity in the post-quake period demonstrated various paths to become more adaptive to the changes brought about by the earthquake. As already discussed in the previous findings relating to the psychological capital components, one business was hugely damaged by the earthquake but the owner was continuously upgrading the business. As a result, the business was ready to introduce its new earthquake tour to tourists. Other

businesses were also innovative and creative in upgrading existing products and services. One tourism activity business not only bounced back reasonably well from a huge decrease in tourist numbers since the 2016 Kaikoura earthquake, but also performed even better than normal because it has quickly established and adapted itself to the Chinese market. Through this creative and innovative path that other businesses would have thought to be as “not the traditional one”, the business was able to market itself without costs, because the Chinese clients were doing the marketing for the business. The owner and general manager of the business said:

*“Um, where we have shown good resilience, we’ve got good abilities to [change]. We are just meeting that new market, and quickly establishing ourselves. One of the great things about the Chinese market is, well, they are really good promoters of their experience. They use social media on the trip, they are sending messages to their friends, they are showing pictures of their fish and rock lobsters etc. you know, that they are doing all that (marketing). In this way, we got another referral, and then we got another one...there are other businesses here view that Chinese market as not the [traditional] one, they would have taken Kiwis and other Europeans perhaps on their trips. So, you know, for us, we made that transition really [quickly]. Boom!” (Participants 11, owner and general manager)*

Drawing from the above discussion, innovation and creativity capacity has been identified from most of the interviews. With innovation and creativity being one of the indicators of adaptive capacity, this finding suggests that tourism SMEs in Kaikoura have the potential and capability to enhance their adaptive resilience in the post-quake period. More importantly, the Kaikoura tourism SMEs have also displayed their unique path to embrace an innovative and creative business environment, with the owners and managers being the facilitators of this process.

#### **4.2.5.2 “Organisational resilience: lack of planning”**

Another sub-theme under organisational resilience extracted from the 17 interview transcripts is that the majority of the tourism SMEs participating in the present research were involved in

less planning processes prior to the earthquake when compared with the adaptive capacity they displayed in the post-quake period. As one of the accommodation business owners said:

*“I don’t plan too much for the future, you know, just for the short term.”* (Participant 2, owner-operator)

This quote is representative of the general message coming from most of the tourism SMEs in this study. This finding echoes some previous studies on SMEs. For example, Orchiston (2013) conducted research on the tourism SMEs in the Alpine Fault in New Zealand, and found that although the businesses were aware of the likelihood of a future earthquake, they generally lacked an understanding of the importance of business preparedness, and especially of the prolonged negative effect that the earthquake may bring to the business recovery. In the present research, it was also expressed by some tourism SME owners and managers that the earthquake came in like “an instant death”, and the recovery process was far more difficult than any other adverse events would have brought to the business. These owners and managers were estimating the time needed for the business recovery. For example:

*“...you know, we are going to have, you know, two years at least, being very restricted in what we are able to do, and without income...I would like to think of it as in two years. I’m not sure if I’m (correct or wrong), we’ll see, yeah.”* (Participant 2, owner-operator)

As a result, planning strategies as another indicator of business planned resilience was found to be inadequate among the participating businesses. Recalling from the literature, planning strategies refers to the development and evaluation of business plans to manage the vulnerabilities of the business environment and stakeholders (Lee et al., 2013). Although some of the businesses have engaged in recovery planning, they generally lack the awareness of having an ongoing risk identification processes, which is an essential component of planning strategies as proposed by McManus (2008). The following two quotes are thus presented to show how two businesses have shown planning capacity to a certain degree. These quotes show that the businesses could demonstrate a certain level of planning capabilities, but they devoted more time and endeavour to generating adaptive responses in the post-disaster period. It is also important to note that the two businesses presented below are all larger in size compared to other participating businesses, and employ more than 10 employees in the peak season. This finding resonates well with McManus’s (2008) study,



which identifies that only the largest organisations in terms of employee numbers and those businesses that have the backing force of a parent company have engaged in some emergency and recovery planning. However, some of the small organisations do not have the awareness of relevant risk management standards in New Zealand.

*“So, in terms of things happening like earthquakes and fires, etc., we have plans in place for that. We are very aware of what gonna happen, although on the particular night the earthquake actually caught us quite unaware, even though we would think we would be reasonably prepared for that event.”* (Participant 7, general manager)

*“We have an [emergency plan] for here, which we’ve always have had well before the earthquake. The final detail of that plan doesn’t exist, it’s the broad...saying, get the staff out of there, after that, you know, we just deal with it. So, I’m pragmatic, but at the same time, we are very aware that you need to alter your plan to alter things, depending on what’s going on.”* (Participant 10, general manager)

In addition, it was often the case for the tourism SMEs that the owners and managers who operated the business controlled the planning process and made decisions. Thus, the role of owners and managers becomes essentially important in the SME context due to limited staff numbers. It was found that some SME owners did not have the awareness of their contributing role in the planning process, given that they were actually doing things to enhance the planning capacity of their businesses. For example, one accommodation owner said in the beginning of the interview that the business never expected to have an earthquake, thus no prior planning strategies were made for dealing with unexpected events like that. The quote from the beginning of the interview is as follows:

*“The earthquake was a very different challenge for us, that was something that we weren’t expecting. We couldn’t foresee that to be...”* (Participants 14, owner-operator, mother and son)

However, when the interview proceeded to the topic of organisational resilience, the owner (the mother in this pair) responded to one of the questions as the follows:

*“I would say that we are definitely a resilient organisation...Because, the earthquake happened in November, and that’s when our accounts were absolutely completely depleted. So, all our money was gone, but I’ve always kept aside on an instinct that we always need to be careful...and I’ve always been very good putting the money aside and make sure that we needed it for some day. And I did, that’s what got our business through [planned strategies].”* (Participants 14, owner-operator, mother and son)

It is obvious to conclude from the above two quotes that the owner of the business seemed to have contradicted her own perception of the preparedness of her business, as the business actually had some informal but useful planning in place for recovery. In this case, the planning strategy was the financial flexibility brought to the business by the owner herself to manage future vulnerabilities. However, because of an inadequate awareness of emergency planning and the informal planning process identified among the interview transcripts, it is still reasonable to argue that these tourism SMEs generally lack a planning process to enhance their organisational resilience.

Until now, all the themes related to organisational resilience have been discussed. The following section 4.2.6 introduces the themes in terms of the different supports received by the research participants. These supports were found to have influenced the psychological capital of the participants to certain degrees and thus are important factors in this study.

#### **4.2.6 Macro, meso and micro level support**

The sub-themes discussed in this section are all inductive in nature, as discussed in Chapter 3. This section discusses the thematic analysis findings in terms of the three different levels of support received from the participating tourism SMEs during the business recovery, and the sub-themes were categorised under the “macro”, “meso” and “micro” level support received by the research participants. Being inductive in nature, the sub-themes being discussed are not related to psychological capital per se, but the research data to some extent showed that the difference in support received by tourism SMEs could possibly enhance or weaken the psychological capital of the owners and managers.

#### 4.2.6.1 “Macro level support: differs between new and established business”

First, a sub-theme emerged from the research data that separated the 17 tourism SMEs into two groups, new businesses and established businesses. One interview question was prepared for those tourism SME owners and managers to see what kind of government help they received after the 2016 Kaikoura earthquake. The majority of the owners and managers participating in the research mentioned that they had either received the grant from the government or were qualified to apply for it. Some of them even said that the grant was given to their business without any application process, and that they were approached by the government instead of proactively searching for and applying for government support by themselves. However, another three businesses told a different story as they were not qualified to apply for the government grant. These three businesses were just set up less than 15 months before the earthquake, and one of them was just set up five weeks before the earthquake struck. The other 14 businesses that were qualified to apply for the government grant had been operating for at least three years. Thus, in this research, established businesses are defined as the local businesses that were qualified to apply for the government grant during the business recovery. Accordingly, the new businesses are those that were not qualified to apply for the government grant.

“Macro” level support from the government came in immediately for the established businesses. As a consequence, the business owners and managers felt relieved and “taken care of” by the government. The following quote is provided to show how the owners and managers of the established SMEs thought about this “macro” level support:

*“...The government’s support was fantastic. That was just given to us without question, and that was wonderful. The grant, they’ve also given us the grant, which I didn’t apply for, I was approached by them for that, and I wouldn’t have known about that...The grant and the learning curve I have gone through certainly helped us come through.”*

(Participants 14, owner-operator, mother and son)

Drawing from the literature, it can be argued that when compared to larger organisations, smaller businesses suffer from resource constraints, including a lack of financial resources. Therefore, they are more likely to be affected by extreme events without the full potential to plan for, adapt to, and recover from those events (Sullivan-Taylor & Branicki, 2011). This

can imply that the financial constraint of SMEs is likely to weaken the adaptive capacity as well as the planning capacity in the face of extreme events. When thinking of the New Zealand tourism sector, this issue becomes even more significant as domestic tourism SMEs are faced with a high risk of natural disasters, especially earthquakes. Unsurprisingly, with the “macro” level government support, the established businesses kept operating and eventually bounced back from the earthquake quicker. The following quotes from the interviews with established tourism SMEs help illustrate this finding:

*“Yeah, it’s difficult, because our business is really as [resilient] as it has been, because of the [government subsidy].”* (Participant 15, owner-operator)

*“Oh, I’ve been very well looked after by the government. There was a [grant] early on, it was 5,000 dollars, I think it came really quickly. And, that helps...that just helped took the place over and pay the bills and rates...the help from the government made the business[resilient].”* (Participant 4, owner-operator)

On the other hand, the other three businesses which were not qualified for the government grant were much more vulnerable. In particular, one new business was found to be extremely vulnerable and less resilient. The owner was thinking about closing down the business, because it seemed impossible for them to bounce back from the earthquake. Previous studies show that SMEs are playing an irreplaceable and important role in many countries (Olawale & Garwe, 2010). When thinking of the New Zealand context, the role of new venture creation becomes even more important as 97% of businesses in New Zealand are SMEs with fewer than 19 employees (Ministry of Economic Development, 2011). A significant number of new SMEs, which constitute a great proportion of New Zealand’s economy, are established each and every year. Moreover, previous researchers agree that a shortage of funds is one of the causes of SME mortality (e.g., Jones, 2009). According to the SME’s life cycle stages (Filho, Albuquerque, Nagano, Junior, & de Oliveira, 2017), the new SMEs in the present research are at the existence stage, which implies that these businesses have just started the struggle for consumers and business result. According to Filho et al. (2017), the SME owners and managers at this stage are still seeking market share to reach a positive business result. As one of the new SME owner said in the interview:

*“... [The 2016 Kaikoura earthquake] was a big thing. Like any small businesses, when you finally get your doors open, your cash flow was pretty much zero.”* (Participants 8, owner-operator, couple)

From the above quote, it is reasonable to infer that new businesses are more financially vulnerable than established businesses, because the new businesses will be faced with a time period when they market themselves to the public but receive little or no income. This was just the case in post-disaster Kaikoura. To make matters worse, new tourism SMEs were unqualified for the government grant, because they could not meet the criteria of the grant such as proving the business provides the owner with a significant source of income, pays its staff at least the minimum wage etc. It is obvious that these criteria are extremely unfriendly for the new SMEs because they could not have generated significant business income at the initial business stage. For instance, the following quote is selected from the interview with one of the tourism SME owners who had just started her business 15 months before the earthquake. It appears from the quote that insufficient “macro” level support could result in significant loss for new ventures when facing a severe natural disaster. However, the unpleasant situation for these new tourism SMEs can only be changed if their voice can be heard by policy makers.

*“I think that government can’t put the right thing in place if they are not actually talking to the right people. The rule for the grant is wrong in Kaikoura, those criteria might be fine in Christchurch, fine for some of the businesses in Kaikoura, but they are not suitable for most of the tourism businesses. Because we haven’t been given any grant, I’ll have no option but to go to work, which means we have to close the business.”* (Participant 13, owner-operator)

#### **4.2.6.2 “Macro level support: influence on psychological capital components”**

Following the sub-theme discussed in section 4.2.6.1, it was then found that various supports seemed to have influenced the psychological capital of the participants. So, the second sub-theme under this section considers the influence of “macro” level support on psychological capital components.

Drawing from the data, it was found that if the SME has received “macro” level support to bounce back and keep operating through the earthquake recovery period, this positive situation was likely to increase the self-efficacy of the business owner and manager, as they would have more confidence to persevere. However, when considering new businesses or some businesses that were less resilient, the business owner and manager were found to be generally less confident. These owners and managers showed a lower level of self-efficacy, and chose not to persevere when they perceived the specific situation was out of their control as well as when they felt their psychological state was out of control. This seems to suggest that self-efficacy is related to one’s motivation in overcoming a specific challenge or completing a specific task, as supported by Bandura and Locke (2003). Two quotes are presented below to show this pattern. The first quote was selected from one interview with the owner of an established business. The second quote shows the situation of another new business that was not qualified for the government grant and the weakened self-efficacy of the business owner.

*“We are quite a large organisation [in Kaikoura] although we don't employ any people, our turnover was ok, we can absorb costs. So, we may not be doing as good as we were last year, but, we are still able to run functionally above budget [organisational resilience]. I think the brand has a lot of resilience. Even if I say that something bad will happen in Kaikoura after the earthquake, I don't think it will affect the business [organisational resilience] ...No, we would not [close down]. We would always be open [self-efficacy, strength].”* (Participant 17, owner-operator, established business)

*“In January and February, we were probably 40% of the year before. Now, we’ve down to 10% of the year before...And, we probably will be closing the business down as soon as I can get a job on the roads...I don't always persevere, it depends on what the challenge is...When something happens, I can become quite depressed...But, it’s very difficult, because I don't have the men and the capacity to put together everything I needed to do [decreased self-efficacy]. We did try, but for some reason, it wasn't successful.”* (Participant 13, owner-operator, new business)

Optimism was also found to be influenced by the support provided by the government. The owners and managers who have received “macro” level support generally demonstrated stronger optimism when compared with some owners and managers whose applications for

the government grant were declined. Generally, a government grant has provided one reason for people to take a positive outlook towards the recovery process. On the other hand, for those tourism SMEs that were not qualified for the “macro” level support, the situation seemed to make these people feel isolated and unattended. As a result, they were less likely to demonstrate adequate optimism towards the post-quake recovery. The following two quotes are selected to present the contradictory situations. These quotes show the different attitudes towards the reopening date of State Highway 1 from one business owner of an established tourism accommodation business (Participant 4) and two business owners of new tourism businesses (Participant 13 and Participant 7). Participant 4 was grateful for the government support, and from the quote it can be inferred that this gratefulness added to her optimism during recovery phase. However, Participant 13 and Participant 7, who were not qualified for the government grant, expressed the opposite opinion and a negative outlook on the future recovery process.

*“I think it will be just fine after the road reopens. Oh, yeah! I’m not worried about that, not at all. It’s just one of the facts of life. Definitely a temporary shutdown.”* (Participant 4, owner-operator)

*“...that road won’t be open by Christmas. They’ve stopped working on it sometimes because of problems. The NCTIR won’t listen to the locals, ok? So, every time they don’t listen to the locals, they get problems. That road won’t be open. And, if it does open, there’s a rumour going around in town that it is going to open but then it is going to close again at the beginning of January 2018.”* (Participant 13, owner-operator)

*“It’s just unlikely that the roads will reopen as they are saying at the moment. The press release is saying one thing, but the reality is very different. I heard even in the last week, that maybe they will open that road for two weeks, and then they will shut it again. So, it’s unlikely that the road will be reopen. At the moment, we don’t believe that’s true.”* (Participant 7, general manager)

When it comes to hope, it was also identified that not receiving “macro” level support could potentially result in decreased hope. This weakened hope was demonstrated by weak agency thinking and weak self-determination. For instance, Participant 13 showed relatively weak self-determination in the business recovery, because she thought that her voice could not be

heard by the authority, thus limiting the opportunity for her business to recover. Feeling isolated, Participant 13 explained that she had no influence on taking part in local decision-making. This is illustrated by the following quote:

*“Because our business is dependent on tourism, and we need the road for tourists, and I have no influence over that. Um, so, I don't feel that I am in control of my destiny and the business, that there's little that I can do here.”* (Participant 13)

Surprisingly, no strong influence of inadequate “macro” level support on the psychological resilience of the participants was found, as all 17 owners and managers have demonstrated psychological resilience during the business recovery, as mentioned earlier. Unlike the other psychological capital components discussed in this section, psychological resilience was to some degree demonstrated even by the most isolated participant who did not receive any help from the government. The detailed examples will be provided in the third individual narrative story in Chapter 4, section 4.4.2.

#### **4.2.6.3 “Meso level support: differs between new and established businesses”**

Then, another sub-theme in relation to external support considers how the support received from local community and other businesses differed between new and established businesses. This support was named as “meso” level support. Interestingly, this sub-theme tells a similar story as the theme discussed in section 4.2.6.1. Generally, when considering the “meso” level support, the owners and managers of the established tourism SMEs expressed a great appreciation for other businesses. According to these owners and managers, local businesses worked closely together during the post-disaster recovery, reducing and even exempting some required payments for other businesses. The participants mentioned that especially their suppliers were extremely kind and helpful in the business recovery process. For example, according to the mother in the Participants 14 pair, her supplier gave her Eftpos machines for free after the 2016 Kaikoura earthquake until she felt ready to pay for them. In addition, most of the established tourism SME owners and managers mentioned about the important role that a strong business network played after the earthquake. Drawing from the data, local businesses often shared resources and information with each other during the business recovery phase. For instance, one accommodation business owner said that he always tried to



book as many people as he could on whale watching, seal activities and dolphin activities in order to send more tourists to other tourism activity businesses. In this way, he believed that other businesses would return their favour and refer more customers to stay in his holiday park. All the ideas seemed to suggest that the established businesses were more likely to benefit from the social capital of the owners and managers. The following quotes are presented to show how “meso” level support from other businesses and local community was appreciated by the established tourism SME owners and managers in post-disaster Kaikoura:

*“Other businesses helped a lot with us. There was a lot of kindness coming from our suppliers. It was very interesting to me, like the smaller New Zealand businesses were very amazing with the way that they were supporting us. It was very, very helpful that a lot of them [other businesses] showed a lot of flexibility and generosity, and they are really willing to see us get through it.”* (Participant 15, owner-operator)

*“Factors that have helped me...um, positive support group. We are also receiving support from the New Life Church [local community support], so, we’ve got a great [support network] there as well, which has been good...There’s been some [suppliers] that have let us go a bit longer to pay, the payments, which has been great. They’ve been really understanding, very supportive, so, our suppliers have been absolutely amazing. We are very appreciated about that, yeah.”* (Participant 16, owner-operator)

As previously discussed, a business network is of vital importance for smaller businesses to survive and thrive, and is of great importance for enhancing organisational resilience (e.g., Street & Cameron, 2007). It is reasonable to say that the support from the local community and local businesses is the result of a previously established business network, which takes time and effort to build. The following quote can illustrate this finding:

*“The reason being is that over 50% of our business comes from the travel industries, the travel agents. The travel agents are called inbound operators. The [relationship] I hold with that inbound operator is very strong. So, after the earthquake, about 10 days after, I rang every single one of them, and said, this is our situation, blah, blah, blah...because I have very good relationships with them, they said don't worry about it, basically, we will work it out, we will support you with whatever you need [meso level support]. Because of*

*those [strong relationships], and that is one of the reasons why we are actually looking at a good year again [bouncing back].” (Participant 10, general manager)*

Drawing from the above quote, it can be inferred that there was a reason for established businesses to enjoy a closely connected “meso” level support network during the post-disaster recovery. Being in the marketplace for a longer period than the new businesses, the established tourism SMEs have gone through a period when they actively built their business network with other businesses as well as with the local community. The “meso” level support came in time when the established businesses suffered from the consequences of the earthquake, and seemed to have contributed to the capacity of the tourism SMEs to bounce back from adverse events and even look forward to receiving “a good year again”. This also implies that the planned resilience enhanced by established business networks pre-disaster became essentially important for the established tourism SMEs to adapt to the changes in the post-disaster period.

However, it was shown by the data that the new businesses were less likely to enjoy a closely connected business network as well as the support from local community. Rather, they were still actively searching for the opportunity to develop business networks. The need for the “meso” level support seemed to become urgent in the face of the earthquake, as it was extremely hard for new tourism SMEs that were isolated from the majority to overcome the challenges. The following two quotes are presented to show how new tourism SMEs differ from established business in their perception of the “meso” level support:

*“And, we both agree that businesses should see new business as challenges and work together rather than seeing new businesses as a threat. Like, two breweries can put on festivals together and stuff like that...And people would get to like you as well, not just the customers but other businesses, because they will be referring people to you.” (Participants 8, owner-operator)*

*“The local businesses don’t work together. It’s my intention to try and see if I can get all the businesses that have been turned down for the grant to work as a body to campaign for it. Because I think that’s the only way that we could get anything changed...And, I would like to find other people perhaps who make things locally, who don’t necessarily have a market, so we could actually sell their goods...” (Participant 13, owner-operator)*

The above quotes show the opinion of two owners of the new tourism SMEs. In general, they both had the intention and plan to set up an effective business network with other businesses. However, unlike the established businesses, a lack of existing business and community network made it nearly impossible for them to receive “meso” level support in the recovery period. The second quote shows that one new business owner even firmly thought that there was “no working together” among the local businesses. A business network is an important indicator of organisational resilience, and the intra-organisational relationships are of great importance especially for SMEs (McManus, 2008; Stephenson, 2010; Sullivan-Taylor & Branicki, 2011). Thus, the “meso” level support reported by the established tourism SMEs shows a promising picture of how strong business connectivity can contribute to the business recovery. However, there is a need to make the voice of those new tourism SMEs heard, as they are actually the ones that suffered the most from the earthquake.

#### **4.2.6.4 “Micro level support”**

Apart from the “macro” and “meso” level support discussed above, the majority of the interviewees also mentioned about the support received from other individuals, for example, their family members and friends, during the business recovery. This sub-theme is called “micro” level support in this thesis. Drawing from the interview transcripts, in general, the “micro” level support can be grouped under two categories. First, the research participants tended to seek support from their friends and family members when they felt down and depressed in the post-disaster phase. For instance, when her friends came down and stayed in the bed and breakfast business, Participant 4 felt better about her situation. She said in the interview that her friends could “keep the spirits up”. Another owner of a new business, Participant 13, experienced huge loss for her business due to the 2016 Kaikoura earthquake, so she regularly went back to the UK and stayed with her family. Some participants also said that the earthquake had to some degree changed their mind, because the role of family had become increasingly important and outweighed the role of work. The following quote shows the important role of the support from family and friends in the post-disaster phase. It can be argued that this “micro” level support can contribute to the positive mental states of the research participants, which is essentially important in the recovery period both for the SME owners and managers and their businesses:

*“Sometimes, the worst thing you can do is not tell people how you feel and not share. Like, my brother is here at the moment, and he is kind of like a life mentor for me, so, when things are hard, I can talk to him. Or, I can talk to my mom and dad, you know, and some friends, speak with them as well. That helps, you know.”* (Participant 12 owner-operator)

Second, some participants have received strategic or financial support from their friends or family members. The strategic support was received when the research participants had friends or family members who had previous experience in running a business and dealing with natural disasters. This is explained by the first quote below. The financial support could help the business get through difficulties when the funds for the business were insufficient, and this finding is exemplified by the second quote below:

*“Some of my best friends have pretty much top restaurants in Christchurch, and, they’ve done really well, they were the first to reopen after the Christchurch earthquakes. And, well, you know, I’ve learned a lot from watching them, and speaking with them a lot, getting advice, and, yeah...”* (Participant 12, owner-operator)

*“While we were lucky, to develop this place, we needed extra fund, really. Like, I was trying to work with the bank to see if they would give us the money, but no. My uncle always said if we needed to borrow some money and we could ask him. That we’ve got a loan from my uncle. And, if it hadn’t been for that, we would have been struggling...”* (Participants 8, owner-operator, couple)

The “micro” level support that the research participants received from other individuals positively enhanced their psychological wellbeing and mental state. In addition, the financial support received from other individuals possibly helped the businesses overcome challenges and kept them operating. It is reasonable to argue that the role of different supports cannot be ignored in this study, as they all contributed to the recovery of tourism SMEs. At the same time, a lack of support may result in adverse situations for a tourism SME, especially for the new tourism SMEs, which were much more vulnerable when compared to the established tourism SMEs.

After discussing all the themes and sub-themes identified from the thematic analysis, the following section will show the general narrative story configured based on the thematic analysis finding, as well as the narrative configuration principles discussed in Chapter 3. The aim of the general narrative story is to demonstrate the main similarities and differences among participants identified from the research data, and to use a story plot to chronologically draw together the most significant elements and happenings identified from the thematic analysis. Every feature of narrative analysis proposed by Bruner (1991), as well as every step of narrative configuration proposed by Polkinghorne (1995) discussed in Chapter 3, are also addressed and included in the following general narrative story.

### **4.3 General narrative story**

Section 4.3 presents the general narrative story, which was crafted following the guidelines provided in the literature as discussed in Chapter 3. This general narrative story also includes the most interesting findings from the thematic analysis, which are now crafted into a story form in this section of the thesis. The story form thus reflects the normativeness of the narrative, as proposed by Bruner (1991). The general narrative story was crafted under a clear timeline including the happenings before the earthquake, the happenings on the day of the earthquake, and the happenings after the earthquake. Thus, the diachronicity and the temporal sequence of the narrative configuration are demonstrated by the temporal structure of the following story. In addition, the researcher was aware of the hermeneutic composability as well as the referentiality of narrative construction suggested by Bruner (1991). These two features of narrative highlight that the general narrative story below further creates and constitutes reality. Therefore, the difference between the actual meaning of the words from the participants and the interpreted meaning presented by the researcher becomes inevitable. This issue was resolved by making the story according to a consistent plot, as suggested by the literature (Bruner, 1991).

*[Before the earthquake]*

The story begins before the 2016 Kaikoura earthquake. The embodied nature of the protagonists in this general narrative story was identified at the beginning, as suggested by

Polkinghorne (1995). Fourteen out of the 17 tourism SME owners and managers who participated in this research are New Zealanders. Two businesses are owned and operated by British nationals, and another business is operated and managed by a British manager. Fourteen out of the 17 tourism SMEs in this study are defined as established businesses, which means that they have been operating for over three years. The other three businesses are defined as new businesses, and have been operating for less than 15 months. Most of the entrepreneurs who own the tourism SMEs were found to be optimistic, and the optimism within them seemed to be related to their venture creation intention in a positive way. They tended to view the creation of their business as the most positive event in their life. Some of them thought that optimism is the reason for their venture creation, and some of them thought that the venture creation helped them become more optimistic and positive, with the business being the major concern and passion in their life ever since. This seems to suggest a bi-directional relationship rather than a uni-directional relationship between optimism and venture creation intention. Moreover, this bi-directional relationship was identified among the participants by concentrating on their different understandings of the venture creation process. This identification process also exemplifies how the researcher concentrated on the choices and actions of the protagonists, as this is Polkinghorne's (1995) another requirement for narrative configuration.

Goal setting was also an important business activity facilitated by these tourism SME owners and managers. Goal setting is one of the three components of hope, and stands for the guiding assumption and the cognitive component of hope. Before the 2016 Kaikoura earthquake, the tourism SME owners and managers were used to setting their personal and business goals. For example, some business owners and managers had already set goals about what they wanted to achieve for the business in three to five years, some participants who just started their entrepreneurial venture set goals of putting a mini golf course, a brewery and an escape room together in their business to attract more tourists. However, the tourism SME owners and managers were inactive in emergency planning, risk management and business continuity management. This seems to manifest what the literature has suggested, that it is not uncommon for smaller businesses to lack preparedness and feasible planning (Orchiston, 2012).

Most of the research participants thought that they had the ability to bounce back psychologically, learning from the adverse events in their life, and even applying the

knowledge gained from previous events to future performance. This shows the psychological resilience of these owners and managers. Some of them grew up in big families, and thought that they had to be strong and resilient in order to have their place in the family. Some of them learned about psychological resilience from their parents and other family members. Some of them have gone through the 2010-2011 Christchurch earthquake sequence, which was perceived by them as the most important factor that contributed to their psychological resilience when facing the Kaikoura earthquake. All these ideas suggest the developable nature of psychological resilience.

Before the earthquake, the owners and managers of these established tourism SMEs were actively building their personal network and business network. The personal network includes family members, friends and mentors. The business network includes suppliers and other tourism businesses in the Kaikoura region. These “significant others” identified from the research data have addressed the requirement for narrative configuration (Polkinghorne, 1995), and at the same time influenced the development of the plot. All the business owners operated their own family business, so it is common that they worked together with their family members. Some participants had close friends who supported and helped them should they have any problem with the business. The participants also learned from their friends who had successful entrepreneurial experiences, and applied the successful strategies to their own businesses. For example, one accommodation business owner learned how to set up and run a restaurant in his hotel by watching his friends who ran some top restaurants in Christchurch and survived the Christchurch earthquakes sequence. The participants also have life mentors with whom they are closely connected. The mentors can be the family members of the participants, who would guide the path and offer instructions when the business encountered difficulties. The mentors can also be experienced friends who would spend time guiding the business direction for the participants. For example, one bed and breakfast business owner has always had some very good mentors who were very successful businessmen and have been able to teach her about business-related issues. More importantly, these examples also show problem-focused coping mechanisms in action.

Another kind of network that helped the businesses before the earthquake was the business network. Most of the owners and managers of the established tourism SMEs have maintained good business relationships with other local businesses. For example, some participants chose to get most of their suppliers locally. Some participants who ran accommodation businesses

would refer the customers to other tourism activity businesses, such as the sightseeing helicopter and the whale watch. In this way, they would expect that the tourism activity business could also refer more tourists back to their motels. However, for those participants who were relatively new to town, it was somehow impossible for them to build their business network in such a short time period. Therefore, when compared with the owners and managers of those established businesses, these participants and their businesses seemed to be isolated from the local business network. Drawing from the literature, a business network is an essential component for smaller businesses to survive and thrive in an ever-changing environment, and contributes to the planned resilience of the businesses (Lee et al., 2013; Street & Cameron, 2007). Therefore, it is unsurprising to see that the “meso” level support received from other businesses played an important role during the business recovery, which will be presented later in this story.

It was also found that the most remarkable approach used by these entrepreneurs and SME managers was a firefighting approach. The psychological resilience identified among the participants helped in building resilience strengths and utilising an effective adaption process for their business. It was obvious that apart from the business networks and a few emergency plans that have positively contributed to the business recovery, these tourism SME owners and managers were more likely to generate immediate plans for their business in the face of change and turbulence. The resilient participants capitalised on their psychological resilience, which made them more flexible and adaptive to the changes and challenges associated with their businesses. As a result, they were more adaptive and aggressive to generate adaptive approaches for their business. This implied their entrepreneurial orientation and the tendency to use a firefighting approach. This finding also exemplifies how this story shows canonicity and breach, another characteristic of narrative form suggested by Bruner (1991), in the narrative configuration, because the researcher believes that the firefighting approach adopted by the participants is one of the most interesting and meaningful elements in this story. The entrepreneurial orientation and firefighting approach were told by the participants in the following ways:

*“It’s not so much that we don’t have a plan in place, it’s just that we are happy to evolve a plan. We are quite fluent, if something comes up, we deal with it.”* (Participants 11, owner and general manager)



*“I just stay calm, and deal with them one at a time. I don't plan for them, but when it happens, you just deal with it as in the best way you can. We've sort of just got to have emergent plans, we adapt reasonably well.”* (Participant 2, owner-operator)

Although New Zealand is a country with high seismic risk, local tourism businesses are found to generally lack earthquake preparedness and planning (Orchiston, 2013). This finding in previous studies also holds true for the participating tourism SMEs in Kaikoura. Before the 2016 Kaikoura earthquake, most of these SMEs had an inadequate planning process associated with earthquakes. Being small in size, the tourism SMEs lack feasible planning in terms of how to react to and bounce back from earthquakes. Also, unlike large businesses which have the capacity to use ongoing simulations and scenarios designed to practice a response and validate plans, it is not surprising that these small businesses did not engage in such planning activities. Only two comparably larger tourism SMEs in this study had a general emergency plan for fires and earthquakes. However, the final detail of the plan did not exist. Rather, the emergency plan was a broad instruction that lacked feasibility. In addition, the majority of the participating business owners and managers lacked the awareness of having an ongoing risk identification process. This seems to suggest that these participants were unaware of what organisational resilience means and how it could be developed, given that planning capacity is one essential dimension of organisational resilience (e.g., Lee et al., 2013; Stephenson, 2010).

*[On the day that the earthquake occurred]*

Two minutes after midnight on 14 November 2016 (NZDT), a magnitude 7.8 ( $M_w$ ) earthquake occurred at 60 kilometres southwest of the tourist town of Kaikoura. The magnitude of the 2016 Kaikoura earthquake is second to only one New Zealand earthquake since the European settlement of the country. The earthquake caused immediate damage to the infrastructure in Kaikoura, and the priority of the owners and managers of all the participating tourism SMEs in the face of the earthquake was to evacuate tourists and to protect their safety. It was identified from the interviews that the owners and managers acted calmly and made sure that all the tourists, as well as employees, were evacuated safely. It can be inferred that when faced with natural disasters like the earthquake, the recovery priority of these tourism SMEs was to protect the safety of people. Although the participants expressed that the earthquake came in like “an instant death”, with no one being consciously aware of

the event at that very moment, most of them did not fall into despair that night. Rather, they proactively evacuated the customers and employees into a safe place and then cleaned the damage in buildings, with the hope in their heart that their life and their business would get back to normal in the near future.

Apart from the internet, water supply and electricity outage in the town, some of the businesses were badly damaged in terms of buildings and facilities. There were generally two reasons for the physical damage. First, some business buildings that were not located in the town centre were damaged by landslips due to the earthquake. However, the majority of the businesses in the town centre experienced less severe physical damage from the earthquake. Second, even though tourism activity businesses, such as some fishing businesses, did not necessarily have a physical site, the damage to the coastal line due to the earthquake made it impossible for them to operate for a period of time. Drawing from the literature, all of the above issues can exemplify that the earthquake, a no-escape and extremely unpredictable natural disaster, not only causes huge damage in infrastructure but also results in a slow recovery process for local businesses (Huang & Min, 2002; Orchiston, 2012; Roy et al., 2002; Tsai & Chen, 2010).

*[After the earthquake]*

Because of the earthquake, local tourism SMEs suffered from huge financial loss generally due to a dramatic decline in incoming tourist numbers. This once again demonstrates the idea from the literature, which suggests that earthquakes can cause negative and drastic impacts on the number of inbound tourism arrivals (Mazzocchi & Montini, 2001; Wang, 2009; Yang et al., 2011). In addition, State Highway 1, also known as the “coastal road”, was only temporarily opened on specific dates throughout the week. The complexities and uncertainties on State Highway 1 have been the major concern for local tourism SMEs, which was perceived by the tourism SME owners and managers as the reason for the decreased tourist numbers. In particular, the road closure caused huge trouble for domestic tourists from Marlborough, Picton and Blenheim. One accommodation business owner said in the interview:

*“But really, we miss a lot of our customers used to come out of the Marlborough area. Um, Picton, Blenheim, those areas. And, the Marlborough Sounds. It was a two-hour drive to those areas, it is now an eight-hour drive.”* (Participant 12, owner-operator)

All the concerns seemed to appear after the earthquake. The majority of the businesses participating in the research lost a huge number of customers after the earthquake, and the situation was hard to change until State Highway 1 reopened permanently. Most of the tourism businesses lost over 50% of incoming tourists when compared with the financial years before the earthquake. One new business even reported in October 2017 that the income for them at that moment was down to 10% of the year before. Until the majority of the established businesses were approached by the government and provided with the “macro” level support, which was a government grant for business recovery, the situation started to improve. However, the government grant was given unconditionally to those established businesses that could provide adequate operational and financial evidence, while when it comes to the new businesses, none of them qualified to apply for the government grant. In terms of this “macro” level support, the different situations of the established businesses and the new businesses were identified as “coherence by contemporaneity”. According to Bruner (1991), the researcher crafted these two simultaneous happenings coherently in order to demonstrate this sharp contrast faced by different businesses.

Generally, almost all the participants have shown confidence in their personal ability to overcome the challenges brought about by the earthquake. With such confidence in mind, the owners and managers had the conviction to deal with whatever obstacles came along the way, and this was identified as the perceived self-efficacy of the research participants. Very few participants, especially one participant who operated a new business and had very limited experience of living in New Zealand, expressed weak confidence after the earthquake, because she thought that the damage of the earthquake was beyond her control. So, instead of fighting for the business to get back to normal, the owners and managers who showed weaker self-efficacy might start thinking about an alternative livelihood. In addition, the owners and managers who have shown strong self-efficacy could use a problem-focused coping mechanism instead of an emotion-focused coping mechanism to overcome an adverse situation after the earthquake. This is because the confident participants normally regulated their emotions effectively. Focusing on the problem itself, these owners and managers were

more likely to figure out the causes and consequences of the problem, and more importantly, the solutions to the problem. As one general manager of a luxury hotel said:

*“So, we are very strong and say, ‘this is what we want to achieve’ [self-efficacy], and ‘what are the barriers that prevent us from getting there’, ‘how do we remove those barriers’ [problem-focused], and then, [persevere]...” (Participant 10, general manager)*

Being in the leading position of the business, the owners and managers who have shown self-efficacy also believed that such confidence was either within themselves as a personal trait, or was derived from their responsibility for their business. When combined with self-efficacy, they believed that they could exert sound leadership by protecting the integrity of their business and supporting their employees. In addition, these participants were confident in their ability to set business directions and lead the business to implement changes in the post-disaster period. When related to the literature, this evidence seems to demonstrate that the leadership, management and governance capacity of the businesses were enhanced by the participants who showed strong self-efficacy. The following quote presents how this capacity was enhanced by the most confident participants:

*“When the staff didn’t know how it was going to [change], so my husband and I did it really [quickly] and said, we do this, and we do this...and then, they [followed]. And, they showed great support back to us by following what we wanted it done.” (Participants 14, owner-operator, mother and son)*

For the participating tourism SMEs, leadership was probably one of the most important aspects in business recovery. Especially when thinking of the entrepreneurship context, the majority of the business owners, who were all entrepreneurs, have demonstrated strong perseverance along with their self-efficacy. After regulating negative emotions and focusing on the problem itself, these SME owners were most likely to persevere and continue providing sound leadership to their business. These findings resonate well with the literature, which suggests that the self-efficacy of entrepreneurs is often found to be stronger than the self-efficacy of non-entrepreneurs and can directly contribute to the venture performance (Baum et al., 2001; Bullough & Renko, 2013; Markman et al., 2005). Based on Stephenson (2010), the good leadership in a post-disaster period demonstrated the enhanced adaptive capacity of the tourism SMEs. Although being small in size, these businesses had the

capacity to enhance adaptive resilience through sound leadership provided by the confident owners.

With optimism being one of the premises of the entrepreneurial process, the tourism SME owners and managers knew how to maintain their optimism when faced with unexpected changes and difficulties. Those participants who were optimistic generally attributed the negative situation to external and temporary causes. For example, they believed that the earthquake, like other negative events that happened in their life, was not in their control, and the best thing to do with those events was to carry on and focus on what they can do to make their life and business better. Also, they had the belief that the post-disaster unfavourable situation was temporary, and everything would go back to normal in the near future. It is hard to remain optimistic when faced with such a traumatic event. However, these tourism SME owners and managers were able to cope with the adversities and remain optimistic. To bounce back from the earthquake, the first step taken by these optimistic owners and managers was to bounce back psychologically. Recalling from the thematic analysis findings, they had the ability to regulate their emotions by thinking rationally and positively. They appreciated all the work that has been done on State Highway 1, even though the reopen date for the road was still “*everyone’s guess*”, as told by Participant 13. Several owners and managers thought that the earthquake has actually brought something good to the township of Kaikoura. For instance, some of them thought that media exposure of the Kaikoura earthquake promoted the town to the world, and some of them recognised that the earthquake has actually brought the local businesses together. Every one of them could think of a way that the earthquake could have caused more significant damage to their life and business than it actually did. By thinking rationally and positively, these owners and managers remained optimistic and still held a positive outlook for the future. Then, it becomes important to say that some of the owners and managers demonstrated realistic optimism instead of unrealistic optimism when faced with the earthquake. After remaining optimistic towards the future and being confident in their personal ability to overcome the challenges, the owners and managers started to rationally think of the situation in front of them. It was clear to them that although being optimistic was helpful to business recovery, the 2016 Kaikoura earthquake was the most significant challenge they have ever experienced. Thus, being optimistic, but at the same time being realistic, would be beneficial should any unexpected difficulties arise along the way. By being realistic and optimistic, the owners and managers could to some degree adjust their expectations for business progress, and made feasible plans for the

business instead of planning for unachievable goals. At this stage, the tourism SME owners and managers often thought in the following ways:

*“As we have to be optimistic, but very reserved. You have to be cautious in spending and things like that. So, you have to almost moderate your optimism. We had the seasons where the conditions weren’t very good, we’ve always known that could happen again, so, we don’t take big risks.”* (Participant 15, owner-operator)

*“Optimism for me is being positive, but also being realistic at the same time. We are not that type of people that we will keep going to something and then ignoring all the impacts along the way. We have emergency plan for here, which we’ve always have had well before the earthquake. But at the same time, we are very aware that you need to alter the plan to alter things, depending on what’s going on.”* (Participant 10, general manager)

In such ways, the owners and managers of the businesses could “moderate” their optimism in order to plan for business strategies in terms of spending and the emergency response. In addition, realistic optimism in the business recovery phase could possibly increase internal and external situation awareness of the owners and managers, thus impacting on the situation awareness capacity of their businesses. Drawing from the above quotes, the participants were able to learn from past problems arising from previous bad seasons, and were aware of the importance of adaptiveness. This exemplifies the internal and external situation monitoring and reporting capacity of the business, as suggested by Stephenson (2010). This situation awareness helped the owners and managers who demonstrated realistic optimism to alter their plans depending on the changing situation during business recovery. Combining the above facts, it is reasonable to say that realistic optimism contributed to the adaptive resilience of these SMEs through increased situation awareness capacity. It is also important to notice that this finding demonstrates the historical continuity of the participants when configuring the story, as the researcher has considered the habitual behaviours and previous experience of these participants who were aware of the negative conditions that they have been through before the earthquake. Considering the historical continuity of the characters is also an essential step required in narrative configuration, as suggested by Polkinghorne (1995).

In addition, the hope of the SME owners and managers also played an important role in the recovery period. The 2016 Kaikoura earthquake made it impossible for some of the tourism SME owners and managers to stick to their pre-disaster business goals. Obviously, most of the established tourism SMEs were expecting steady business growth, and all the new tourism SMEs were expecting to increase their market share in the upcoming new season. However, the earthquake disappointed their original plans. The earthquake posed unexpected damage to the businesses, and made business recovery the main goal for almost all the participating tourism SMEs. This changed goal identified from the majority of the participants shows the discontinuity of the happenings in narrative configuration. Polkinghorne (1995) suggests that it is possible for the patterns of human thought and action gained from historical experience to change when faced with specific events. In this story, the earthquake is the specific event that caused historical discontinuity in terms of the business goals. With the new goals in mind, some of the owners and managers actively searched for new pathways to achieve the desired business goals. Being adaptive in the face of the earthquake and its consequences, these tourism SME owners and managers were able to transfer personal adaptiveness into the adaptive capacity of their business. This transfer was realised through their ability to generate new pathways depending on the changing environment. What's more, the participants who had very strong motivational power and self-determination in working towards the goals often persevered along the way in order to fulfill the desired goals. Also, because of perseverance, these tourism SME owners and managers could continuously adapt themselves and their businesses. More importantly, changing the pathways to fulfill business recovery involved innovation and creativity capacity. The tourism SME owners and managers who demonstrated hope in the recovery period also came up with innovative business strategies, products, and even new business models as their new pathways to fulfill the desired business goals.

This innovation and creativity capacity derived from the psychological component of hope also resonates well with the innovation and creativity capacity coming out from other psychological capital components. Being confident in their personal ability to provide sound leadership for the business and persevere during the business recovery period, the owners and managers were more likely to continuously think about new paths for their businesses in the recovery period. The owners and managers who demonstrated strong self-efficacy had the ability to generalise their expectation of efficacy under different circumstances, even when faced with the difficult situation after the earthquake when they nearly lost over 50% of the

customer base. With the desired goals in mind, and with the hope to generate new pathways for the business after the earthquake, the owners and managers also had to rely on their self-efficacy to complement the task. For example, some of them shifted to new marketing channels, for instance, “Ctrip”, to promote their business to international tourists. Some of them planned to do earthquake tours to attract tourists back to town, and planned to tell the stories of their experience on the day when the earthquake broke out. Some of them proactively changed their target market from domestic tourists to Chinese tourists, who were less impacted by the uncertainty of the road status on State Highway 1. In addition, the Chinese tourists were used to sharing their real-time experience through social media, and the research participants could successfully learn from this new marketing approach from the Chinese tourists and develop more potential customers. These ongoing innovative and creative strategies highlighted the efforts that the owners and managers made for their businesses a few months after the 2016 Kaikoura earthquake, and also suggest that the psychological capital of the tourism SME owners and managers could possibly contribute to the business innovation and creativity capacity in post-disaster recovery. Their businesses became more resilient in terms of adaptive capacity through enhanced innovation and creativity. The following quote exemplifies how the innovation and creativity capacity was perceived by the research participants:

*“Well, especially in the after-quake period, you know that you’ve got to be creative. You’ve got to constantly be upgrading and training and trying something new...and, that’s the hope for this site.”* (Participants 8, owner-operator, couple)

The last component of psychological capital, psychological resilience, was also the most important positive psychological capacity demonstrated by the local tourism SME owners and managers during the business recovery. Thinking of a post-disaster context, it is reasonable to argue that psychological resilience stands for the most important and predominant psychological capital component which contributed to recovery, because it refers to the capacity for an individual to rebound or bounce back from adverse events (Luthans et al., 2007). Most of the tourism SME owners and managers agreed on the process view of psychological resilience, and believed that previous experience of adverse events made them stronger and more resilient should future adverse events occur. This fact shows the developable nature of psychological resilience, and also demonstrates that previous experience with natural disasters increases personal resilience (Ferraro, 2003; Luthans et al.,



2007). In particular, for the owners and managers who had previous experience in the 2010-2011 Christchurch earthquake sequence, an earthquake was not an unacquainted event. These owners and managers were generally more aware of what the consequences of an earthquake would cause to their business, and the actions and inactions involved in the business recovery period. In addition, the previous experience of some other adverse events enhanced the psychological resilience of the participants as well. These could be the previous experience of bouncing back from failed marriages and relationships, the previous experience of bouncing back from health issues, and even the previous experience of seeing others bouncing back from adverse events. One fishing business owner and general manager even thought at this stage that it was their nature, as well as the nature of their business, to be resilient when faced with adverse events like the earthquake. Instead of feeling knocked down by the earthquake, the owner and general manager perceived the 2016 Kaikoura earthquake as some “daily challenge” that they had to face on a daily basis. So, the general manager said:

*“The key thing is, by our nature, we are resilient, because we are daily being affected by other influences. Basically, the very nature of what we do, you know, we are tourism business, so, on a daily basis, we are dealing with clients from many different nationalities, abilities, disabilities, um, sea conditions, you know, the general weather...So, there are always times that throughout our year where the things like the weather, place of factor, disruptions, travel, you know, and all of those things that we’ve experienced with the earthquake...So, although the earthquake came along and it was significant, for us, other than obviously being unable to operate for six weeks and the loss of income, that wasn’t necessarily a difficult thing for us to do.”* (Participants 11, owner and general manager)

The process view of psychological resilience identified from the research participants also resonates well with the construction of an authentic narrative story (e.g., Polkinghorne, 1995). The process view of psychological resilience highlights the importance of considering the historical continuity of the happenings in this narrative story, because the habitual behaviours of the participants before and after the 2016 Kaikoura earthquake were identified and presented.

With the previous experience of adverse events, as well as previous experience of the Christchurch earthquakes sequence, the tourism SME owners and managers were more likely

to be aware of the changing environment and the strategies they were going to implement accordingly. Ayala and Manzano (2014) suggest that resilience can be seen as the result of the interaction between entrepreneurs and the surrounding environment, which holds true for the owners and managers participating in this research. They capitalised on their psychological resilience gained from previous experience, and applied this to effectively enhance business performance after the 2016 Kaikoura earthquake. With this internal and external situation awareness, the owners and managers who have demonstrated psychological resilience were able to generate business strategies that worked best during the recovery period. This situation awareness came from the psychological resilience of the owners and managers, and in another way enhanced the adaptive resilience of their businesses. However, as discussed earlier, only two out of the 17 participating businesses had general emergency planning prior to the 2016 Kaikoura earthquake, given that many owners and managers of the participating tourism SMEs have experienced previous earthquakes. This seems to suggest that the SMEs in this research relied more on adaptive resilience and emergent strategies instead of planned resilience and planned strategies.

Because of psychological resilience, the tourism SME owners and managers were able to see the earthquake as a catalyst to upgrade their business. When relating to the literature, de Verries and Hamilton (2016) also suggest that small business owners can perceive disasters as a catalyst to change the existing business model. Most of the SME owners and managers participating in this research not only bounced back from the negative impact of the 2016 Kaikoura earthquake psychologically, but they also had the ability to view the earthquake from another angle. This holds true for all the participating business owners who have gone through their own entrepreneurial process. This finding also exemplifies another “breach” identified among the research data, demonstrating an important and meaningful element of this story (Bruner, 1991). Referring back to the examples discussed earlier, the innovation and creativity capacity seems to be also connected with psychological resilience. It was because of psychological resilience that the owners and managers persevered in the face of adversities and found new paths for their business rather than closing it down, which is supported by previous studies (e.g., Bullough & Renko, 2013). Having the “Kegkoura” craft beer festival every year in the future was a business upgrade in terms of marketing strategies. Changing the target market and attracting Chinese tourists who were less likely to be impacted by the earthquake and the uncertainty on State Highway 1 was a business upgrade in terms of target customer group. Introducing earthquake tours to the tourists instead of

closing the damaged business down was a business upgrade in terms of products. The innovation and creativity demonstrated by the tourism SME owners and managers was not only enhanced by self-efficacy and hope, but also psychological resilience. The connections identified among the different psychological capital components are examples of how the researcher fulfilled the requirement of narrative accrual proposed by Bruner (1991). According to the literature, connecting the elements together with clear relationships to construct a holistic story is essential in shaping narrative stories (Bruner, 1991).

In addition, although some other tourism SME owners and manages did not actually come up with a new business model in the post-disaster recovery, they still perceived any upgrade of the business because of the earthquake as an opportunity to stabilise future growth. Looking back to the earthquake and the recovery that the business has been through, one accommodation business owner said:

*“No, I’ve never knocked down by events. I didn’t feel knocked down by the earthquake. the earthquake provided us with a way to make money, believe it or not. It’s the earthquake, with its repairs, it’s also gonna stabilise our growth.”* (Participant 12, owner-operator)

Both the personal network and business network that the participants developed prior to the 2016 Kaikoura earthquake were contributing to the business recovery. As a consequence, the personal network provided “micro” level support, while the business network provided “meso” level support for the participants after the earthquake. This finding once again exemplifies how the historical continuity of the events was identified through narrative configuration, and also demonstrates narrative accrual through explaining the clear casual relationships between events (Bruner, 1991’ Polkinghorne, 1995). The resilient participants also understood the importance of the connections with other people and businesses. They relied on specific coping mechanisms such as seeking social referencing and social support from their friends, family members and other business partners, doing things for others who have gone through a hard time in the earthquake as well, and working together with other businesses to get through the adverse situation more effectively. For most of the participants, “micro” level support was the most accessible support during the business recovery. They shared their negative emotions and experiences with their family members in order to seek support and advice. Some resilient owners and managers also mentioned that the earthquake

made it clear for them that safety and family were the most important aspects in life. Being supported by family members, the owners and managers felt more motivated to bounce back from the earthquake and also lead their business to recover. In addition, the owners of a new tourism SME received financial help from their uncle, which made it possible for business recovery and growth. This financial support also filled the gap of inapplicable government grants for this new business. Some resilient participants also sought help from their friends and business mentors who were experienced in dealing with difficulties. These resilient participants also did as much as they could to help others who suffered the consequences of the 2016 Kaikoura earthquake. By helping others to recover from the big earthquake, the resilient participants would feel more positive and optimistic about the business recovery, which means that such a coping mechanism also enhanced their positive psychological capacity from the other way around. The resilient participants would think in the following ways:

*“You go out and you help other people, by doing something for somebody else, that helps you to recover.”* (Participant 4, owner-operator)

*“We are now helping people, like, friends and close friends like that, to help clean up and all those sort of things. We are quite positive about the whole thing, really. [My husband] went out to one country lodge, he was actually busy with paying, but he dropped everything off and went out and helped them. He had to shift all the furniture out of the units to let the painters go in. So, he went out and helped them, and he enjoyed it, you know. Just to be able to help somebody else in need makes you feel good...”* (Participants 3, owner-operator, couple)

Apart from the above coping mechanisms, resilient tourism SME owners and managers also made use of business networks developed prior to the earthquake, or developed new business networks during the business recovery. The owners and managers of the established businesses were more likely to connect with existing business partners and receive “meso” level support from them. For example, some accommodation owners and managers were actively contacting and connecting with inbound operators who might be able to refer potential tourists back to Kaikoura. Some owners and managers received free Eftpos machines from their suppliers, and others received a deferred payment agreement from their suppliers. This capacity developed by the resilient business owners and managers exemplifies

one of the indicators of organisational resilience, namely, the capability and capacity of external resources (McManus, 2008; Stephenson, 2010). The effective external business partnerships developed pre-disaster enhanced the planned resilience of these businesses, which could be utilised in the post-disaster period to contribute to business recovery. In contrast, the owners and managers of the new businesses were less likely to seek “meso” level support, given that they had not developed adequate business networks before the earthquake.

Finally, it comes to the denouement of this general narrative story. Until October 2017, which was the time when the interview data for all these 17 local tourism SMEs in Kaikoura had been collected, most of the established businesses had shown signs of recovery. Drawing from the findings demonstrated in this general narrative and the main purpose of this thesis, the business recovery seemed to be closely related to the positive psychological capital demonstrated by the participants. More importantly, concluding from the above story, throughout this time these participants have shown self-efficacy, optimism, hope and psychological resilience, and each one of these four psychological capital components seemed to have contributed to different indicators of organisational resilience. To briefly conclude from the story, it was shown throughout the general narrative story that the indicators for organisational resilience such as leadership capacity, situation awareness for internal and external business environment, innovation and creativity capacity, and capability and capacity of external resources were enhanced by the psychological capital demonstrated by the research participants. Obviously, when referring back to Stephenson (2010) and Lee et al. (2013), these indicators are mostly grouped into the adaptive capacity of the business. The lack in the planning capacity of the business also resonates well with how these participants often react to changes and challenges both before and after the earthquake. The entrepreneurial orientation highlights how these SME owners and managers were happy to evolve emergent plans rather than plan in advance for their businesses, which is in congruence with the fact that these businesses were more resilient in terms of adaptive capacity rather than planning capacity.

At the end of this general narrative story, the researcher wishes to address the issue of context sensitivity and negotiability. Based on Bruner (1991), there is no absolute truth embedded in narratives, and the interpretation process inevitably raises the issue of subjectivity. The aim of this general narrative story is not to reach an unbiased result, as supported by Mura and

Sharif (2017). However, the researcher has cautiously interpreted the data by deeply understanding both the text and context of the happenings in order to configure one consistent and holistic narrative story. Based on Bruner (1991), the narrative perspective taken in this story takes cognisance of both the process of interpretation and reflexivity, and it also has the purpose of seeking a narrative truth that facilitates the interpretivist perspective in shaping this narrative reality. Section 4.4 below presents three individual narrative stories that are considered representative and further answer the research questions of this study in more detail.

## 4.4 Individual narrative stories

After configuring the general narrative story to highlight the most interesting findings among the research data in a chronological manner, the researcher will now present three individual narrative stories that were configured based on the same principle of the general narrative story configuration. Given that the researcher has highlighted how the principles of narrative configuration were demonstrated throughout the general narrative story, the detailed explanations will not be included in the following individual narrative stories. The aim of configuring the three individual narrative stories is to further explain how the psychological capital identified from three representative participants influenced the specific aspects of organisational resilience. Thus, the following three individual narrative stories can further answer the research questions of this study in more detail, while at the same time presenting the data in narrative form. The first individual narrative story is presented in section 4.4.1, and the second individual narrative story is presented in section 4.4.2. These two narrative stories both demonstrate the detailed experience of the participants operating established businesses. Section 4.4.3 shows the third narrative story, which was crafted based on the experience of one owner of a new tourism business. In order to answer the research questions and present the stories in a well-organised structure, first, each one of the following individual narrative stories is assigned with one catching title. Second, the most interesting findings that answer the research questions are highlighted in bold, serving as the sub-titles for the individual narrative stories.

#### 4.4.1 Individual narrative story 1

##### **If I ever dream of something, I'll make it happen**

*[Before the earthquake]*

##### **Strong and resilient owner expecting an extraordinary season ahead**

The mother in the Participants 14 pair, and her husband, are the entrepreneurs who own a tourism business in Kaikoura (note that the mother in the Participants 14 pair was accompanied by her son during the interview, not her husband). Being an SME, their business employs nine people. Unlike other tourism businesses in Kaikoura, the Participants 14 business is located several kilometres away from the town centre. As a result, the mother in the Participants 14 pair and her husband had always been trying hard to attract customers to stay at their holiday park. Unlike some of the tourism businesses located in the town centre, she never took it for granted that tourists would just keep coming to their business. As she said: *“we worked very hard for them to come here, because especially that we are outside the town. So, it would never have been taken for granted, never, ever, there’s always a high respect for them coming and appreciation for them coming”*. She perceived herself as a very resilient person. Interestingly, this perceived resilience had been developed since childhood. She recalled: *“...both myself and my husband come from big families, and I think we have to be resilient in our family, we have to have our say. So, you have to find your way through, it was a battle as who is going to climb on top”*. She thought that the psychological resilience enabled she and her husband to become the strongest people in their family. The business owner had always been an optimistic person, but she stayed realistic at the same time. For 16 years, she and her husband persevered to support and lead their business. The owners thought in a way that a small business was different from other bigger organisations, because they ended up doing everything rather than giving jobs to different people. In addition, perseverance was also a personal trait that Participants 14 possessed and treasured. *“Well, we’ve been here for 16 years now, and I think in any business that you run or own, there’s always lots of challenges that you are going to come against. So, to survive in a small business, you have to be very, very strong and thinking outside the square as how you gonna manage and how are you going to make it work for you”*, she said. On one hand, she explained that she persevered because the business was the livelihood for her family, and on



the other hand, because of the responsibility to her staff. In terms of planning for business strategies in advance, most of the time the owner did not think that she planned for the business very often. Instead, like other SME owners, she was more used to generating emergent plans when she had to. However, it was interesting that this fact seemed to contradict her own perception of business preparedness. The owner had an “instinct” that the business would always need some extra funds in the future in case unexpected events happened. As a result, she has always been putting aside extra money to protect her business from some “rainy days”. *“I’ve always been good putting the money aside and make sure that we needed it for some day. There’s going to be rainy days...”* she said. In the spring of 2016, the mother in the Participants 14 pair and her husband were expecting a good season for the business as usual, because the tourism businesses in Kaikoura had always been seasonal, with summer being the peak season. In addition, she was expecting the summer to be an extraordinary one as she had received a great number of forward bookings and the situation seemed promising.

*[On the day that the earthquake occurred]*

### **The “rainy day” came but they conquered through local government support**

However, the “rainy day” actually came on 14 November 2016 when the magnitude 7.8 ( $M_w$ ) earthquake struck unexpectedly. The mother in the Participants 14 pair and her husband had never expected to face with such a catastrophic disaster. As she recalled: *“...that unknown happened so quickly, it’s almost sort of like an instant death, really. It sorts of came too quick and there was no time”*. Faced with this “unknown”, she and her husband quickly went into overdrive. Surprisingly, Participants 14 were approached by the government. It was unexpected for the business owner that the government would provide her business with the grant, because she had not applied for it. *“They approached us, which was absolutely wonderful, because I wouldn’t have known”*, she said. With this “macro” level support coming from the local government, and with the extra funds that the mother in the Participants 14 pair had prepared for the business in case of unexpected events, she was able to help her business get through the earthquake at the very beginning.

*[After the earthquake]*

### **Self-efficacy: enhanced leadership capacity of the business**

Apart from the government grant, the mother in the Participants 14 pair, as the owner and operator of her business, demonstrated strong psychological capital that effectively contributed to business recovery as well. To begin with, the business owner showed strong self-efficacy as she was confident in her personal ability to overcome challenges associated with the earthquake. *“I believe in myself, absolutely”*, she said, *“I mean, I have that ability to just switch off and suddenly lower the standards of our lifestyle”*. The first change that she made was to lower the standards of their life to save whatever she could for her business. Being confident in her personal ability, she was able to provide sound leadership for the business as well. In this way, her self-efficacy was not only part of her personal trait, but also the result of her responsibility to the business and her staff. *“The staff didn't know how it was going to change, so my husband and I did it really quickly and said we do this, and we do that, and then they followed”*, she said. She and her husband had the judgement that they could effectively exert leadership by setting the direction and goal for the business in turbulent times, building good relationships with their followers and leading them to overcome obstacles ahead in the post-disaster period. The mother in the Participants 14 pair and her husband showed leadership self-efficacy (LSE), which as mentioned was a concept proposed by Paglis and Green (2002), and this positively contributed to the leadership capacity of their business during the business recovery. With leadership capacity being one indicator of the business adaptive capacity, it is reasonable to argue that the self-efficacy of the owners has positively contributed to the adaptive resilience of the business.

**Optimism: think rationally and positively, and being realistic enhanced the adaptive resilience of their business**

Then, the mother in the Participants 14 pair has shown optimism as a component of psychological capital during the post-disaster phase. She perceived that her optimism level was quite high, and on a scale of one to 10, she placed her optimism at eight. Being optimistic, the business owner was able to attribute the causes of undesirable events to be external and temporary. In this way, she would not be bothered by such negative events. On the contrary, she was extremely determined to achieve her goals, and attributed the causes of desirable and positive events as being within her control. She was able to generalise and apply such causes across other life situations. For example, she and her husband were ambitious people who liked to feel in control of what they did and what they could do. She said: *“Generally, if I almost dream on something that I want to do, and generally, I will make it happen, yeah”*. However, when something negative happened, or when the desired thing

did not happen, she still stayed optimistic and said: “...*things that don't happen, I'm comfortable with that, because that's maybe there was a reason for it not to happen*”. During the business recovery, she was also able to optimistically reflect on the undesirable natural disaster. “*Anything that happened, because there's always something good that comes out of it. Even with the earthquake, there's been lots of good things after the earthquake*”, she said. Being able to think positively and rationally, the optimism of the business owner was transferred into positive emotions in the post-disaster period, which motivated her to persevere against the challenges associated with the 2016 Kaikoura earthquake, while remaining optimistic for the future. In addition, as mentioned earlier, although Kaikoura is a famous tourism town in New Zealand, the business owner never took it for granted that tourism businesses in Kaikoura could just wait for customers to come without making any effort to attract the visitors. Being optimistic while also realistic at the same time, the owner has always had the situation awareness that tourism SMEs should be aware of the uncertainties and challenges arising from the external environment, and should know that one business must devote itself to always thinking about strategies to attract visitors. Thus, optimism, as one component of psychological capital, motivated the mother in the Participants 14 pair to persevere during the business recovery. Also, most importantly, by demonstrating realistic optimism she could increase the situation awareness of her business. Therefore, the business became more resilient in terms of adaptive capacity, as she said: “...*we have to be submissive to the changes as well. Accept what we didn't want to accept...to constantly think ahead of how to make small changes and good changes. And, little perks to get things on, to get people to come back*”.

### **Hope: changed goals and alternative pathways enhanced adaptive resilience of the business**

In addition, during the business recovery period, the mother in the Participants 14 pair demonstrated strong hope. After the 2016 Kaikoura earthquake, in the broader picture, her desired goal for the business has not changed dramatically. Instead, she wished to maintain the business as it was, and maintain what she had been doing prior to the earthquake. But, because of the earthquake, there were mainly two additional goals for her to achieve. First, she felt total responsibility for her staff. As a consequence, one of the new goals for her after the earthquake was to keep her staff employed and supported. “*So, that goal was for me to keep our staff employed, because they had mortgages and things like that, so that was a big goal for me to keep them employed, which we did. And, I think we were very open with them,*

*to let them understand that they possibly could lose their job, but we would do everything in our power”*, she said, determinedly. As a result, the relationship between the business owner and her employees was becoming stronger and stronger in the post-disaster period. Second, in terms of personal goals, she has realised after the earthquake that fitness was such an important factor in her life. *“Fitness is important for me, because our stress levels were very, very high. And, I felt that exercise...that we needed to exercise in order to release our tension”*, she explained. By exercising more, she was able to achieve her personal goal after the earthquake. Also, at the same time, the change in personal goal could be seen as another coping mechanism that she employed to cope with the tension arising from the earthquake. By exercising more, she was able to, to some degree, avoid the negative psychological impact of the earthquake, and focus on other meaningful things in life. This coping mechanism positively contributed to her personal recovery.

More importantly, as previous study has proved that goal setting can develop and enhance the hope of individuals (Luthans et al., 2007), it is reasonable to argue that goal setting for the mother in the Participants 14 pair could positively enhance the hope within her. When we go back to the business goal, obviously, she has to work harder to achieve the desired goal because of the earthquake. With hope, she was able to proactively find an alternative pathway for her business to achieve the goal, as she recalled: *“...I would definitely say plan B. And, actually, if you have noticed my office at home, I’ve got a notepad with the writing on it ‘life is all about how to handle plan B’. So, it’s sort of if plan A doesn’t work, kick into plan B”*. As a result, she has been constantly thinking about alternative pathways for her business to attract visitors back. In doing so, she realised the importance of innovation and creativity. *“We realised that social media is such a huge part of our business, so, we’re definitely investing and investigating more into that”*, she said. The owner and her son recalled that social media and the use of internet marketing *“wasn’t a thing”* when they first established the business. However, they realised that social media was of great importance after experiencing the 2016 Kaikoura earthquake. In order to find new pathways to attract the tourists to come back she devoted herself to investing in the business website. *“It’s about advertising again, isn’t it? You know, by being creative, trying to find ways to get people to come back”*, explained the son in the Participants 14 pair. This transition essentially shows two indicators for their business adaptive capacity and organisational resilience. First, because of strong hope, the mother in the Participants 14 pair has always been proactively finding alternative pathways for her business. The creative and innovative transition in their

marketing strategies implied that the business embraced fresh thinking, which solves new and existing problems, as proposed by Stephenson (2010). What's more, the business owner demonstrated strong psychological hope, which motivated her to continuously think outside of the box, and to make strategic changes to adapt to the changing environment. Therefore, it is reasonable to say that the innovation and creativity capacity of the business was encouraged by her as the owner of the business. Second, as the owner and operator of the business, she was able to learn lessons from past experience and upgrade the business in the future based on the lessons learned. As she recalled: *"I always believe anything that happens in life happens for a reason, and it was a fantastic learning curve for us in our life. Then, we didn't realise, but now when I look back, I learned so much"*. In addition, being aware of the requirement of a changing environment, which in this story was to change and upgrade the marketing strategy in the post-disaster period, indicates that the business owner was proactively monitoring emerging issues in its industry. These findings imply that the business possessed the capability of internal and external situation monitoring and reporting, which is an indicator in the organisational resilience model proposed by Stephenson (2010). This indicator suggests adequate situation awareness of the business, and also suggests the adaptive resilience of the business. Thus, it is reasonable to propose that hope, as another component of psychological capital, can positively contribute to the adaptive resilience of the business through enhanced internal and external situation monitoring and reporting during the business recovery.

**Psychological resilience: develops through time and enhances the adaptive resilience of the business**

More importantly, the last component of psychological capital, psychological resilience, was found to have the most significant influence on business performance and organisational resilience after the earthquake. The son in the Participants 14 pair had a very precise understanding of psychological resilience, as he explained: *"...well, strong and can face with adversity, I would say. Someone who can just sort of dust himself off and keep going"*. In response to this explanation, the mother in the Participants 14 pair added that she would respect and appreciate people who were resilient. In addition, she thought that resilient people were born to lead and others were to follow. *"Not everybody can lead, but everybody can follow"*, she said. As discussed earlier, she perceived that her psychological resilience was developed through childhood experience and was first shaped by her position in her family.

With time going by, she agreed that resilience was developed through life experience and events. This implied the developable nature of psychological resilience.

In addition, as the owner of the tourism business as well as an entrepreneur, she was able to see the earthquake as a catalyst to change the existing business model, like some other tourism business entrepreneurs in Kaikoura did. She not only quickly bounced back from the negative influence of the earthquake, but also successfully learned new lessons from the earthquake and appreciated the opportunity that she could upgrade her business during the post-disaster phase. Like she said: *“I think the most important thing was that we maintained what we were, and, if not, it was almost maintaining it even better as to what we were doing”*. Also, she perceived that the earthquake had provided her with the possibility to grow the business *“even bigger or better”*. Drawing from Luthans et al. (2007), psychological resilience stands for not only bouncing back, but also bouncing beyond adversities. In this way, it is reasonable to argue that, during the business recovery, the mother in the Participants 14 pair not only demonstrated that she had the ability to bounce back from the earthquake, but also the ability to bounce beyond the adverse event. For example, as mentioned earlier in this story, she devoted more time and effort to creating and upgrading the business website, which had been often ignored before the earthquake, and was aiming to attract visitors back using this upgraded marketing approach.

The son in the Participants 14 pair accompanied his mother and father during the hardest time, and commented: *“...you see, it seems to me that organisational resilience is about how the business adapt to changes quickly. And, it seems to me that if you guys haven’t adapted to it as fast as you did, it could be kind of struggle trying to get through Christmas (2017)”*. Being resilient in the face of such adverse event, the participants 14 pair were able to utilise problem-focused coping mechanisms to effectively cope with the difficulties. It was because of psychological resilience that the business owners did not feel negative about the business recovery. The mother in the Participants 14 pair explained: *“There’s never really anything negative, really. And, anything that happened, because there’s always something good that comes out of it”*. As a result, she was actually not bothered by the earthquake psychologically. Instead, she directly focused on the problem rather than the negative emotion associated with the earthquake. Immediately after the earthquake, she was able to quickly recognise the problems faced by her business, which were inadequate funds and decreasing visitor numbers, and quickly switched their lifestyle into saving as much as they could. *“No more buying food,*

*we eat what we've got in the house. Before, I was sort of just buying, buying, and buying. Now, I used everything from the house and used everything in the freezer. And, with the business, we closed everything down that we possibly could to save power. You know, even just small things to save power*”, she explained. Actually, the owner has always been aware that she had the ability to quickly adapt both herself and her business to the changing environment, with no time to despair and hesitate. By being resilient and focusing on the problem, she was actually making rapid and effective decisions for her business in turbulent times, which contributed to the decision making capacity of her business. Moreover, the previously discussed innovation and creativity capacity of the business was also connected to psychological resilience and the problem-focused coping mechanisms utilised by her. This is because when she bounced back from the negative event and tried to work out new solutions to the existing business problem, she proactively found alternative pathways that could lead the business to a better stage and eventually achieve the desired business goal. Thus, it is also reasonable to argue that psychological resilience, in this way, was effectively connected to hope and the innovation and creativity capacity of the business. Given the above, the decision making, situation awareness, and innovation and creativity capacity of the business were enhanced by the mother in the Participants 14 pair, which indicated that her psychological resilience was positively related to the adaptive resilience of her business.

### **Synergistic effect among the four psychological capital components**

Indeed, when thinking back to the other psychological capital components discussed above, each one of them is connected with psychological resilience. First, when the mother in the Participants 14 pair showed strong self-efficacy and believed that she had the ability to quickly switch off and lower the standards of her lifestyle, psychological resilience was demonstrated. If she was not resilient enough, she would not have bounced back from the negative influence of the earthquake quickly and adapted to the changing environment immediately. This finding in her story resonates well with the proposition by Luthans et al. (2007), which states that confident people who show strong self-efficacy will be able to transfer and apply their psychological resilience to specific tasks in their lives. Second, an optimistic explanatory style of the business owner, as discussed earlier, was also likely to be enhanced by psychological resilience. Luthans et al. (2007) suggest that this link between optimistic explanatory style and resilience might be realised through internalised perception of “being in control” (p. 19). Third, being resilient and able to bounce back from adverse events, she was more likely to have strong hope against the difficulties associated with the

earthquake, and was thus more motivated to find alternative pathways for the business goal and persevere to achieve the desired goals. Psychological resilience, in this way, not only contributed to business recovery, but was also linked with other psychological capital components and to some degree demonstrated the synergistic effect of the four psychological capital components.

## **Denouement**

Drawing from the above discussion, it is not surprising to see that the business has been resilient since the earthquake occurred, and remained resilient during the post-disaster phase. First, as presented earlier, the business has been operating under sound leadership and rapid decision making provided by the mother in the Participants 14 pair and her husband, with their followers supporting and fulfilling every decision they made. Second, the situation awareness of both the internal and external business environment was enhanced by the business owners, which increased the adaptive capacity of the business in interpreting changing business information, as well as learning from failure and problems. Because of the situation awareness, it is more likely that the business will capitalise on the upgraded business website and attract more customers through it in the future. Third, as the mother in the Participants 14 pair recalled, *“our employees did ten-fold for us more than they’ve ever done. There’s very strong unity with us, very, very strong, we are like a family”*, which demonstrates that staff also played an important role during the business recovery. Thus, drawing from Stephenson (2010), stronger staff engagement and involvement also enhanced the business adaptive resilience during the recovery period. Fourth, the business has displayed an organisational culture that encourages and embraces innovation and creativity. As already discussed earlier, this culture was found to be facilitated by the psychological capital of the business owners. The innovation and creativity capacity of the business will strengthen the business adaptive capacity as well, which will contribute to the adaptive resilience of the business post-disaster. However, as with other tourism SMEs, participants 14’s business displayed more adaptive resilience rather than planned resilience during the business recovery. For example, the business was found to lack feasible planning for natural disasters, although it is known by the local people that New Zealand is a country with frequent earthquakes occurring. There was no detailed emergency plan prepared for the business should an earthquake happen. In addition, although the mother in the Participants 14 pair saved a certain amount of money for “rainy days”, she admitted that this action was more of an “instinct” rather than a planned strategy for the business. Thus, it should be expected



that tourism SME owners, like herself, plan more for their businesses in order to enhance the business planned resilience. All in all, the business never closed for one single day because of the earthquake and continues operating to recover from the 2016 Kaikoura earthquake. However, the recovery process is a huge task for the mother in the Participants 14 pair and her business. Almost a year after the earthquake, she started to see signs of recovery. Hopefully, the business will grow even stronger compared with what it was before the earthquake. The result is yet to be seen.

#### 4.4.2 Individual narrative story 2

##### **By our nature, we are resilient!**

*[Before the earthquake]*

##### **Business nature resulted in firefighting approach and strong psychological resilience**

Participants 11 were one business owner and one general manager being interviewed in a pair. The business owner started his own fishing business in Kaikoura in 2014. The general manager of the business, who is a friend of the owner, runs the scenic boat tour and fishing activities of their business. The business is operated by only the two of them. On a daily basis, they were dealing with uncertainties and changes. For example, sometimes the sea conditions were suitable for taking customers to go fishing, while there were also times when the conditions made it impossible for tourists to set out for the tour. If this was the case, they had to negotiate with their customers and try to arrange for another time for the tour. Because of the experience of adverse events, these two participants were always aware of the uncertainties and changes they would face with. In addition, through interactions with customers of different nationalities, they thought that their cultural sensitivity had increased. They were aware of the growth of the international tourist market, especially the Chinese tourist market well before the earthquake. Among the tourism SMEs in Kaikoura, they were probably one of the first businesses to realise the importance of international tourists, especially Chinese tourists. What's more, these two participants demonstrated entrepreneurial orientation prior to the earthquake, which means that compared to other non-entrepreneurs, they were quicker to react to changes. They were used to making emergent plans instead of planning for strategies in advance, and they perceived that it was their personalities and the nature of their business that resulted in their preference to take on such a firefighting approach. They thought that they were resilient all the time, and could bounce back from any adverse events almost immediately. *"Because we are daily being affected by other influences"*, said the general manager, *"it's not so much that we don't have a plan in place, it's just that we are happy to evolve a plan"*. Drawing from previous studies, it is common for small businesses to evolve plan along the way rather than planning in advance (e.g., Orchiston, 2012). Being used to evolving plans, the owner and general manager went through

a lot of difficulties together. Both they and their business were extremely adaptable when faced with challenges and uncertainties.

Apart from the firefighting approach they took on a daily basis, Participants 11 were quite unaware of some planning capacity they have brought to their business, which might have contributed to the planned resilience of the business. For example, like other SME business owners and managers, they developed sound relationships with other local businesses. They also maintained stable relationships with their business partners, which were the tourism operators who sent potential customers to them. In addition, their cultural sensitivity and a deep understanding of the growth of international tourists developed well before the earthquake would probably have helped their business adapt to changes more quickly and effectively. Participants 11 had actually enhanced the proactive posture capacity of their business pre-disaster, because they had strategic and behavioural readiness to respond to early signals of a change in market. Therefore, the planned resilience of the business has been enhanced through this proactive posture (Lee et al., 2013; Stephenson, 2010).

*[On the day that the earthquake occurred]*

### **Threats to the business operation because of the earthquake**

The magnitude 7.8 ( $M_w$ ) earthquake occurred on 14 November 2016. Although there was little damage to the property of Participants 11's business, the damage to the sea and State Highway 1 caused unexpected difficulties to it. Because of the earthquake, a ban on the taking of rock lobsters was imposed by the local government, which lasted for months and made Participants 11 unable to organise lobster tours. In addition, as previously discussed in Chapter 1, the earthquake posed great difficulties on the roads as well as for the travel intentions of tourists. These factors all added up to a negative situation for the business. The earthquake was unexpected, and neither of the two participants had prepared for any plan to protect the business from the earthquake.

*[After the earthquake]*

### **Self-efficacy: enhanced problem-focused coping**

These two participants have demonstrated strong positive psychological capital after the earthquake. To begin with, they demonstrated strong self-efficacy through magnitude,

generality and strength. First, they believed in their ability to manage the tasks regardless of the degree of task difficulty. This implied that the magnitude of their self-efficacy was strong. Second, they took on whatever came as a challenge and were confident in dealing with all the difficulties. This could be seen as their ability to generalise their efficacy under different situations. Third, they had a strong conviction of dealing with challenges, which implied the strength of their self-efficacy. The general manager concluded from their experience during the business recovery: *“So, although the earthquake came along and it was significant, for us, other than obviously being unable to operate for six weeks and the loss of income, that wasn't necessarily a difficult thing for us to do”*. Because of the strong self-efficacy, these two participants were not bothered by negative emotions associated with the earthquake, because they believed that they had the ability to deal with all the challenges. Instead, they focused on the problems and coped with the challenges effectively. They proactively began to find solutions to the problem, which in their case was the huge decrease in tourist numbers.

**Optimism: think rationally and positively, and being realistic to enhance the adaptive resilience of the business**

In addition, Participants 11 showed optimism during the business recovery. Although the huge earthquake imposed significant damage on Kaikoura, and the recovery took a huge amount of time and effort, the owner and the general manager could always look at the clearer side of these events, and perceive any effort to the recovery as an inspiring progress. To remain optimistic towards the recovery, they were good at using coping mechanisms such as positive thinking and rational thinking. For example, the general manager recalled that: *“You know, the township is still intact, they were quickly, there were plans in place for reconstruction, redevelopment of the road, the rail, all those things were of national importance”*. From 14 to 17 September 2017, Kaikoura hosted the “HOP” car show, and State Highway 1 was opened for the “HOP” week. It was the first time that Kaikoura was full of visitors and noise since the 2016 Kaikoura earthquake. Then, in October 2017, Kaikoura welcomed visitors by hosting the “Seafest”. This was the second big event for Kaikoura since the earthquake. Participants 11 were encouraged by those two events and became more optimistic because of the “HOP” and the “Seafest”. *“And, I think, over the last couple of weekends or last months, we've had two big events here, one was the Kaikoura ‘HOP’, a really successful event, a lot of people came, which was great. And, the ‘Seafest’, same thing, even the weather was bad, it sounds like everyone had a great time. So, you know, that's encouraging us that those events still attract people, even with those barriers in place to get*

*here, you know*”, said the general manager, *“so, from our point of view, you know, that makes you feel like, yeah, yeah, that will be good”*. Being optimistic, these two participants could think positively and see hope from every progress made during the post-disaster phase. Apart from positive thinking, Participants 11 could also use rational thinking as another coping mechanism to regulate their emotions. By thinking rationally, Participants 11 could step back from any adverse situation and take an objective view of it. For example, they believed that they were lucky in the face of the earthquake. *“We are lucky that it wasn’t during the day and they are digging tourist buses out there. No one on the road! Amazing, a small miracle from the god, really. You know, it could have been thousands of people out there”*, said the general manager.

Apart from the above coping mechanisms discussed, Participants 11 also knew how to moderate their optimism during the post-disaster phase and remained realistically optimistic. These two participants have quickly shifted their target market to Chinese tourists in the post-disaster time. They explained that this was because that they had seen the growth of the Chinese tourist market before the 2016 Kaikoura earthquake. Otherwise, they would not have made such a radical change. In addition, the owner believed that the premise for the full business recovery would be *“having the road properly opened”*. With this awareness and concerns in mind, these two participants were able to fathom the current situation and knew when and how to make rapid changes and decisions. Being aware of the changing environment, they knew when to adapt their strategies to the changes, and could successfully transfer this situation awareness into the internal and external situation monitoring and reporting capacity of their business. This has enhanced the adaptive resilience of their business in the post-disaster phase. Apart from using coping mechanisms that demonstrated optimism and positive emotions, optimism for these two participants also meant viewing the negative factors in life as being external and temporary, while viewing the positive factors in life as being within their control. For instance, the general manager explained: *“The adverse things, like the bad weather, we accept it as it happens. When we are good, we work hard. You know, last week was the Chinese holiday, so, we were working for the whole weekend, it was great, you know, we carried lots of people, get everyone a great experience”*. Optimism, in this way, made Participants 11 remain confident and optimistic towards the future, and persevere against the challenges regardless of the difficulties along the way during the business recovery.

### **Hope: goal setting and alternative pathways seeking to enhance both the planned and adaptive resilience of the business**

After discussing optimism, the story proceeds to the topic of hope. With the major challenge for the business changed as a result of the earthquake, the business goal for Participants 11 has also changed. On top of still delivering their good products to the customers, they also wanted to attract more tourists back to town. They had realised that the business had to source customers from a different country. With this changed goal in mind, these two participants were able to develop alternative pathways for their business to achieve the desired goal. The alternative pathway would be, once again, developing the Chinese tourist market that was recognised by them prior to the earthquake. *“The goal probably has changed a little bit, because we now realise that we have to source our customers from a different...like, Chinese nationals. So, the goal was to try and get them developed”*, said the general manager. He thought that for people in China, the information about the 2016 Kaikoura earthquake was past news, and it would not have such huge impact on their travel intentions as it had on domestic tourists. *“Whereas the local people or the domestic market, they are still very aware of the road closure and the significant rebuilding taking place”*, said the general manager. Participants 11 utilised the resource in relation to the Chinese tourist market that they had prior to the earthquake, and proactively and quickly established themselves to meet that new market after the earthquake. If they had not realised the importance of shifting to the international market in the post-disaster phase, the huge decrease in domestic tourist numbers might have escalated into a crisis that would threaten their business survival. In developing the Chinese tourist market, they showed hope through finding alternative pathways to achieve their changing goals with strong self-determination.

With time going by, Participants 11 not only realised the importance of Chinese tourists to their business, but also the importance of the innovative marketing approach that they could learn from the Chinese tourists. *“...One of the great things about the Chinese market is, well, they are really good promoters of their experience. You know, their use of social media”*, said the general manager. They realised that the Chinese tourists were always taking pictures and sharing their real-time experience through different social media channels, for example, “Facebook”, “Twitter” and “Wechat”, which is one social media platform mostly used by the Chinese. The real-time experience sharing was an amazing way to promote the business, because the friends of these Chinese tourists would comment on their pictures and wish to come to Kaikoura as well. Participants 11 proactively learned from the Chinese tourists, and

at the same time adapted their business to the changing environment. *“Like I said, use social media telling other people, so then we got another referral, and then we got another one... And, there are other businesses here that didn't adapt to that change quickly enough, and, they might be great fisherman, but they won't be polite, respect or culturally sensitive, you know, all those good words we'd like to hear. So, you know, for us, we made that transition really quick. Boom!”*, concluded the general manager. Because of all the changes and adaptations that Participants 11 made to their business, they thought that it was very adaptable against the changing environment. In this way, the search for the alternative pathways facilitated by the strong hope of Participants 11 actually enhanced the innovation and creativity capacity of their business, because they could use their knowledge about the Chinese tourists in novel ways, and develop solutions to their business through changing the marketing approach and learning innovative business strategies from their customers. In addition, being able to find alternative pathways for their business, Participants 11 were extremely aware of the situation associated with the internal and external business environment. The owner and manager have proactively monitored emerging issues and market changes in the industry. Thus, the innovation and creativity as well as the situation awareness capacity can imply the adaptive resilience of their business.

### **Psychological resilience: enhanced the adaptive resilience of the business**

Fourth, these two participants stayed calm and psychologically resilient. Connecting the earthquake with their previous experience prior to the earthquake the general manager said, *“So, because we are working in a dynamic industry anyway, it can be affected by many things on a daily basis. That, the earthquake didn't really disrupt us psychologically, you know, that we bounced back extremely quickly”*. Resilience, in this way, can be seen as the result of the interaction between entrepreneurs and the surrounding environment, as supported by previous studies, and can be developed through events (e.g., Ayala & Manzano, 2014). Like many other local tourism SME owners and managers, instead of being beaten by the earthquake, Participants 11 could stay resilient and view it from a different angle and see it as the starting point to upgrade their business. This finding is supported by de Veries and Hamilton (2016), who suggested that owners in small businesses could perceive the disaster as a catalyst to change their existing business model. Because Participants 11 could see the earthquake as an opportunity to upgrade the existing business, they were actively searching for ways to change it. As a result, they needed to monitor the changing business environment and correctly interpret the information coming out from the industry. *“I don't think you can call the*

*Chinese market an emergent market any more, you know. And that's been going on that for about a number of years, that market's already here. They are travelling, they are travelling in greater numbers. Overall, they have good experiences, and when they go home, they are satisfied with their New Zealand experience",* said the general manager. From the quote, it is obvious that Participants 11 could interpret the information about the Chinese tourists correctly, and knew that this emergent market meant growth opportunity and market shift for them. This finding implies enhanced internal and external situation monitoring and reporting capability, as supported by Stephenson (2010). Based on the above discussion, in short, psychological resilience was developed through life events and in this case enhanced the situation awareness of Participants 11. Being the owner and general manager of the business, their situation awareness naturally transferred into the internal and external situation monitoring and reporting capacity of their business, which would eventually enhance the adaptive resilience of the business in the post-disaster period (Lee et al., 2013; Stephenson, 2010).

### **Innovation and creativity: demonstrated through the synergistic effect among the four psychological capital components**

Most importantly, drawing from the above discussion, the synergistic effect of the four psychological capital components is found through the innovation and creativity capacity that Participants 11 brought to their business. This capacity was not only demonstrated through psychological hope, but also facilitated by other psychological capital components, namely self-efficacy, optimism and psychological resilience. First, the innovative market shift from the domestic tourists to the Chinese tourists could not be realised without strong confidence in personal ability. The business owner and the general manager were determined to implement the market shift, and strongly believed in themselves to carry out this shift. Second, they have demonstrated optimism in the post-disaster period as they were able to see the clearer side of events and were positively encouraged by every progress. Optimism and its "through-action" effect, as proposed by Youssef and Luthans (2007, p. 781), could potentially contribute to how they transferred their optimism into actions that enhanced business performance. Thus, optimism was positively contributing to the innovation and creativity capacity of the business, because Participants 11 could not have chosen to attract the Chinese tourists without being able to see the brighter side and the opportunities. What's more, the internal and external situation monitoring and reporting capacity enhanced by realistic optimism, as mentioned above, positively contributed to the adaptive resilience of



the business, and allowed it to shift to a new market with adequate awareness and knowledge about that market. Third, psychological resilience of Participants 11 enhanced the innovation and creativity capacity of their business as well. As discussed earlier, because of psychological resilience, they were able to immediately bounce back and see the earthquake as the starting point to change their existing business model. Therefore, without bouncing back from the earthquake, Participants 11 could not focus on attracting Chinese tourists and learning new business strategies from them. This could imply that the psychological resilience of Participants 11 had also contributed to the innovation and creativity capacity of their business.

### **Denouement**

The 2016 Kaikoura earthquake was a past event for Participants 11, but the business recovery remains an ongoing task for their business. Concluding from this story, first, because of self-efficacy, they were more likely to focus on the problem rather than the negative emotions associated with it, and persevered to solve the problem more effectively. Second, being optimistic, Participants 11 were better at using various coping mechanisms to express their positive emotions and stay calm and rational against disaster. They also knew that they should moderate their optimism and remain realistic at the same time. The realistic optimism increased the situation awareness of the business owner and the general manager, which then transferred into the enhanced internal and external situation monitoring capacity of their business. This again contributed to the adaptive resilience of their business in the post-disaster period. Third, hope, as another psychological capital component possessed by Participants 11, was also strongly associated with the resilience of their business. Their ability to find alternative pathways for their business implied strong situation awareness and the innovation and creativity capacity of their business. These all suggest that the adaptive resilience of the business could be possibly related to hope. Fourth, the owner and the general manager have shown strong psychological resilience both before and after the earthquake. This psychological resilience was developed through previous events, which increased the internal and external situation monitoring and reporting capacity and the adaptive resilience of the business. In addition, the psychological resilience of Participants 11 was also demonstrated through their ability to view the earthquake as a catalyst to change the existing business model, and persevere along the way instead of giving up when faced with adverse events. Most importantly, in this story, it was through innovation and creativity that the synergetic effect of the four psychological capital components was identified. Throughout the

story, Participants 11 have demonstrated more firefighting approaches than planned business strategies, which was in congruence with their entrepreneurial orientation in dealing with daily problems. What's more, the story shows that their psychological capital has contributed more to the adaptive resilience than planned resilience of the business, because the organisational resilience indicators in terms of adaptive capacity were mostly identified throughout the story.

### 4.4.3 Individual narrative story 3

#### **The voice of the new businesses needs to be heard**

*[Before the earthquake]*

##### **Emotion-focused coping**

Participant 13 comes from the UK, and is an entrepreneur who owns her tourism business in Kaikoura. In the early days, she dreamed of studying medicine for her tertiary education, but this decision was not supported by her father. She knew clearly that medicine was a course she would only get through with family support. Therefore, Participant 13 chose not to persevere studying medicine. *“I don’t always persevere, no. It depends on what the challenge is...And, that’s a regret I’ve had all my life. I know that medicine was something I am good at”*, she said. Unlike some other participants, she thought that she could get depressed easily from experiencing negative events. As a result, the approaches that Participant 13 often employed to deal with challenges were dependent on her mental state. In general, if she was at one moment feeling upset for any reason, she would probably find the challenge quite defeating. However, if she was positive, she perceived herself as a pragmatist. *“It’s just the time span and also the psychological wellbeing inside. I can become very down before I come back up. Because when you are low, you don’t do other things well”*, she said.

##### **Optimism led to venture creation**

In 2015, Participant 13 decided to start her own tourism business in Kaikoura. Because she was from the UK and had never operated a business, she had to come to New Zealand without any real knowledge about what the situation was going to be in this new environment. At the beginning, she thought that the only goal for her was to make enough money to be able to go back to her family in Europe every year. Despite all the challenges faced by Participant 13 when she tried to establish her tourism business in Kaikoura, she still thought that being successful to buy the property and start her own business in the town was one of the most positive events in her life. *“The fact is that we were in control of making our decision that we wanted to buy it, deciding the price that we wanted to offer for it. And, being able to do the research on it, finding the right people to contact. So, all those aspects were under our*

*control*”, recalled by participant 13. As discussed in the previous chapters, being optimistic is one of the premises of an entrepreneurial process, and her optimism once again proved this argument. As the entrepreneur recalled, too many things would have gone against her journey to New Zealand. For example, she explained that the visa required could have been one obstacle that went against her entrepreneurial process. However, she stayed optimistic and ended up realising that every obstacle seemed to disappear along the way. “*So, we just have the faith that we just keep going*”, she said.

*[On the day that the earthquake occurred]*

### **Flying back to New Zealand on the day after the earthquake**

Compared with other tourism businesses in town, the business of Participant 13 was quite new. The business focused on farm tours, as well as selling products and oil extracted from the plants in the farm. In addition, there were two bed and breakfast cottages on the farm that allowed visitors to stay. Participant 13 did not employ other people, but instead there was only herself and her two sons running the business together. When the 2016 Kaikoura earthquake occurred, Participant 13 was in the UK visiting her family. Both her two sons were in New Zealand and stayed with the business on that night, and there were also guests in the bed and breakfast cottages. One of her sons slept in the office, while the other stayed in the house on the highland near the business property. “*One of my sons was hearing all the noise from here and the noise of the earthquake, and he thought it was our house falling down, he thought his brother was dead*”, she recalled. “*I found it being quite dramatic being in the other side of the world, and for 12 hours until I actually spoke to one of the boys, I didn't know whether they were dead or alive*”. Surprisingly, under this extreme situation, Participant 13 had the ability to think calmly and pragmatically. At that moment, she took some time to calm down. Then, she thought in a way that if there was no way to know what was happening at the other side of the world, there was no point worrying about the unknown. Instead, she took the first flight back to New Zealand on the next day. “*So, it was a case of just making sure that I did everything I needed to do*”, she commented. By keeping herself away from the problem and any negative thinking, Participant 13 was able to take an objective view and stay calm in the face of the earthquake. This showed the avoidance and rational thinking coping mechanisms used by Participant 13 in an extreme situation. However, the impact of the earthquake on her psychological state was comparably greater than other

participants who demonstrated stronger psychological capital, and a detailed discussion will be provided in the following paragraphs.

*[After the earthquake]*

### **Lack of both “macro” and “meso” level support**

At the beginning of the recovery period, Participant 13 perceived that being a family business and new to town were drawbacks for her to apply for government support. She explained that the business did not qualify for the government grant, and she also thought that the criteria for the grant was “*wrong in Kaikoura*”. Participant 13 explained: “*...those criteria might be fine in Christchurch, fine for some of the established businesses in Kaikoura, but are not suitable for most of the tourism businesses, we don't get that grant because we don't have the ‘working wages’...*”. Besides, unlike the other participants, she thought that the local businesses did not work together. “*...the local businesses don't work together, it's my intention to try and see if I can get all the businesses that have been turned down for the grant to work as a body to campaign for it*”, she said. The above two factors showed the different situation faced by Participant 13 and other owners and managers of the established businesses, given that most of the research participants ran their business for a longer period of time. Being new to town, Participant 13 found that the business lacked the required financial evidence to apply for the local government grant, thus she felt disappointed when her application was rejected by them. In addition, most of the participants who ran an established business expressed that there was a close relationship between their business and other businesses, but Participant 13 expressed an opposite situation faced by her business. This might be because the established businesses had used more time to develop business networks with other businesses prior to the earthquake. As a result, it was reasonable that the established businesses were closely connected by business relationships, while the owners of new businesses were less likely to have established such strong business networks before the earthquake.

### **Self-efficacy: relatively weak and closely related to psychological wellbeing**

Because of the above reasons, Participant 13 found it more difficult for both herself and her business to recover from the 2016 Kaikoura earthquake. First, she demonstrated relatively weaker self-efficacy post-disaster. As discussed previously, she perceived that she did not always persevere. “*...With the challenge that we are facing now, it could hit me quite hard. I*

*can become quite depressed*”, she explained. Because Participant 13 could easily feel depressed, it was more difficult for her to believe in her personal ability to overcome the challenges associated with the earthquake. The lack in both “macro” and “meso” level support even exacerbated the fact that Participant 13 was not as confident about her ability as the other participants were. What’s more, she explained that she did not have a clear idea of the perceived task difficulty that she could attain, the degree of conviction of her efficacy magnitude, and whether or not she could generalise her efficacy under different life circumstances. Instead, Participant 13 more often perceived that she needed to attend to her psychological state first. If she was mentally down for some reason, then she would find that any challenge was “*defeating*”, and would easily lose self-efficacy under such circumstances. In addition, as she pointed out that her life was closely related to her psychological wellbeing, she often utilised emotion-focused coping mechanisms instead of problem-focused coping mechanisms. Participant 13 is representative of those who focus on the emotional distress and eliminate the emotional distress to bounce back from adverse events in this study. For instance, she knew how to effectively comfort her tension when she heard about the Kaikoura earthquake while she was in the UK. In addition, she could think in the following way: “*So, there’s an ongoing impact of the earthquake, which will pass through time, you know, it will get less. We’ll become more confident*”. Therefore, it can be inferred from the story of Participant 13 that her self-efficacy was relatively weak and closely influenced by her psychological wellbeing.

### **Optimism: comparably weaker when compared to the owners and managers of the established businesses**

Second, the story proceeds to discuss optimism, the second component of psychological capital. Interestingly, Participant 13 was able to use specific coping mechanisms, namely, rational thinking and positive thinking, to capitalise on her optimism and eventually contribute to the business recovery. For example, she received an insurance payout after the earthquake, because the water tanks in the business area moved as a result of the earthquake. Participant 13 used this insurance payout to install gas water heating into the cottages instead of replacing the old water tanks. “*The money from the insurance company wouldn’t cover the cost of the gas heating, but it probably covers half the cost of it. And, we wanted to do that work anyway, so the earthquake had been helpful, because it has partly funded something we would otherwise going to have to pay for*”, she explained. By being optimistic after the earthquake, Participant 13 was able to think positively and rationally, and showed positive

emotions through these coping mechanisms. The positive emotions thus contributed to the business recovery process. Because Participant 13 could optimistically perceive that the earthquake was “*helpful*”, and then use the insurance payout to upgrade the heating system in the cottages, this eventually enhanced and upgraded the standard of the business facilities. In this way, based on Youssef and Luthans (2007), Participant 13 was able to broaden her problem-solving skills and the adaptive capacities of her business in the face of unexpected events.

However, although being able to think positively and rationally and transfer the optimism into enhanced business performance, Participant 13’s optimism was still found to be weaker than the optimism expressed by other participants. For instance, she has never believed that the pre-announced reopen date for State Highway 1 was undoubted. Instead, she said: “...*that road won’t be open by Christmas. They’ve stopped working on it sometimes because of problems. The NCTIR won’t listen to the locals, ok? So, every time they don’t listen to the locals, they get problems. That road won’t be open. And, if it does open, there’s a rumour going around in town that it is going to open but then it is going to close again at the beginning of January 2018*”. In this way, it is reasonable to conclude that the weaker optimism of Participant 13 resulted from the perception of being isolated by supportive organisations. This finding is in congruence with the previous discussion, highlighting that the business network and connection were comparably weak for new businesses due to inadequate “macro” and “meso” level support.

### **Hope: decreased because of inadequate support, thus weakening the adaptive resilience of the business**

Third, the story now proceeds to the topic of hope. The business goal had changed as a result of the 2016 Kaikoura earthquake, as Participant 13 wished to increase the income for the business and to see it rise by 50%. According to her, she has developed a clear goal for her business. However, her hope was also influenced by and dependent on her psychological wellbeing. Besides, Participant 13 demonstrated relatively weaker agency thinking, as she showed weak self-determination in finding new pathways for her business in the post-disaster period. “*Because our business is dependent on tourism, and we need the roads for tourists, and I have no influence over that. Um, so, I don’t feel that I am in control of my destiny and the business, that there’s little that I can do here*”, she said. Even when she tried to develop some pathways for the business to recover, for example, she kept advertising her cottages and

developing the online shop, she found that “*none of those things are actually going to replace what we need*”. In this way, when compared with other participants who demonstrated stronger hope during their story, it seemed harder for Participant 13 to positively influence her business through an effective alternative pathway. In addition, the innovation and creativity capacity of the business, which was found to be directly facilitated by the strong hope of the owners and managers in the previous two individual narrative stories (see section 4.4.1 and 4.4.2), was not demonstrated through Participant 13’s story. Her weaker hope was due to inadequate motivational power and self-determination to work towards the business goals, because she had experienced more obstacles and problems during the business recovery than others.

More often, Participant 13 was found to inadequately monitor emerging issues in the local tourism industry, because she said that “*...when all these people who are running the recovery come to town, they talked to the same selected group of people and businesses, they don't come and talk to the small businesses. Half of the time we didn't know they were coming into town*”. Being new in the town, the business network was not fully established, and the social capital that Participant 13 could rely on was inadequate. Moreover, drawing from the above quote and the story told by her, it became obvious that the adaptive resilience of the business was weakened as a result of insufficient situation awareness of the external environment (Stephenson, 2010). More importantly, this insufficient situation awareness of the external environment was due to the reality that new tourism businesses were somehow isolated from the other established businesses in town. Concluding from this paragraph and comparing it to the other two narrative stories presented in sections 4.4.1 and 4.4.2, it is reasonable to argue that the inadequate hope demonstrated by Participant 13 was closely related to the fact that new tourism businesses in Kaikoura had less say and received less support from both the government and other businesses in the region, which also weakened the adaptive resilience of the new businesses during the recovery phase.

#### **Psychological resilience: comparably weaker than the owners and managers of the established businesses**

Fourth, the story comes to talk about the last component of psychological capital, psychological resilience, demonstrated by Participant 13. On one hand, being an entrepreneur, she showed psychological resilience in the way that she had the ability to perceive the 2016 Kaikoura earthquake as a catalyst to change the existing business model, as other resilient



tourism business owners and managers did. In this way, she could bounce back and beyond from the disaster and seek growth opportunity out of the earthquake for her business. If we go back to the previous example about upgrading the customer cottage provided in the paragraph discussing optimism, we can also discover psychological resilience within it: “...*we have to completely review the improvements we wanted to do for the business, and that will impact revenue over the next few years. The fact that we are quieter because of the earthquake this year gave us time to look at how we deal with customers, because the days when we had lot of customers we were overwhelmed. So, we could view how we operated. We could really take a step, I could see really what makes life easier*”, she explained with a smile. By thinking in this way, Participant 13 clearly understood that her priority during the business recovery was to upgrade and modernise one of the cottages. She was able to start thinking about mobilising the internal resources of the business to upgrade the cottage for future guests. As a result, instead of using the money paid from her insurance company to fix the damaged water tank, Participant 13 used the money to install gas water heating in one of the cottages. Drawing from McManus (2008) and Stephenson (2010), it can be argued that although the business had inadequate resources to ensure its ability to provide extra capacity during a crisis, Participant 13 at least invested in the insurance awareness for her business prior to the earthquake and was able to make use of the insurance premium compensation to upgrade business facilities. Inferring from the story of Participant 13, it can be concluded that her psychological resilience positively contributed to the transfer of the financial resources, because she could resiliently perceive the earthquake as a “*helpful event*” that “*partly funded*” the reconstruction of the guest cottage. As a consequence, the adaptive resilience of the business was to some degree enhanced through internal resource mobilisation during the disaster.

However, on the other hand, apart from the positive perspective of psychological resilience discussed in the above paragraph, Participant 13 told a relatively different story about psychological resilience when compared to the owners and managers of the established businesses. For example, as discussed at the beginning of this story, she was from the UK and did not have enough knowledge of what the business environment would be like in New Zealand. As a result, she did not have enough life experience in living with frequent earthquakes as people in New Zealand do. Therefore, it took more time for Participant 13 to bounce back from the natural disaster than other participants. As she said in her interview, “*I think the problem is there are a lot of aftershocks, and people find it is difficult to get through.*”

*I've just been in the UK for five weeks. For the first two weeks, I was there, every time something shook, I jumped, because I thought it was an earthquake. It took time for my head to realise that just because something shakes it doesn't have to be the earthquake.*” It can be inferred from the quote that the negative influence of the earthquake was strong and ongoing for Participant 13. This is reasonable when referring back to the process view of psychological resilience, because she did not have the chance to develop her ability to bounce back from any previous earthquakes in her life. Therefore, the psychological resilience demonstrated by Participant 13 was not strong enough as she admitted that her psychological resilience was very much dependent on her psychological wellbeing. In addition, being new in town once again became a huge problem for Participant 13 and the business recovery process. Drawing from the findings of the thematic analysis, participants who displayed stronger psychological resilience often relied on coping mechanisms such as seeking social support, doing things for others, and social referencing. The other individual narrative stories presented in the previous sections have also shown that local tourism businesses in Kaikoura have been closely working together during the post-disaster phase. However, Participant 13 received no social support from the local community due to unestablished business networks. This issue also negatively influenced her psychological resilience, because she thought that being isolated from other established tourism businesses in town intensified her negative emotions, which prevented her from being as strong and as resilient as the other tourism SME owners and managers in town.

## **Denouement**

To conclude, first, a lack in the different levels of support became a significant factor that influenced both the psychological capital of Participant 13 and the recovery process of the business. The lack of “macro” level support from the government posed a significant challenge for Participant 13 and her business, because there was no financial support coming from the government to help this new business get through. Second, being new to town means that the business still had an inchoate business network, which caused a problem for the business when it needed to access help and resources from other businesses during the post-disaster period. This was therefore recognised as the lack in “meso” level support. Third, as a result of the above two factors, the psychological capital showed by Participant 13 was quite a different story when compared to other participants who operate established businesses. The self-efficacy demonstrated by Participant 13 was weak in terms of magnitude, generality and strength. Compared with other owners and managers, she thought that the

level of her confidence was largely related to her psychological wellbeing, and the efficacy within her could be negatively impacted by the fact that the business was quite isolated from the local community. In addition, having no previous experience in dealing with earthquakes was another factor that prevented Participant 13 from quickly recovering from the disaster. As a result, it was only possible for her to regain self-efficacy when the traumatic feeling faded through time. When it comes to optimism, it was first inspiring to see that Participant 13 was able to think about the earthquake in a positive and rational way, so that she could capitalise on her optimism and enhance the adaptive capacity of her business. However, apart from the specific coping mechanisms that demonstrated optimism, there was no other finding in terms of how her optimism could have led to any indicators of organisational resilience. During the story, Participant 13 also showed weak hope through inadequate agency thinking and the ability to find effective alternative pathways. In addition, the above story also showed that because of inadequate “meso” level support, as well as this weakened hope demonstrated by Participant 13, the resilience of her business was weakened through insufficient situation monitoring and reporting and insufficient innovation and creativity capacity. Moreover, a lack of “macro” level support as well as “meso” level support once again negatively impacted on her psychological resilience. Although it could be inferred from the story that a certain degree of psychological resilience had enhanced the capability and capacity of internal resources of the business, there was no other evidence in this story indicating any positive relationship between psychological resilience and organisational resilience.

It is not then surprising to see that the business experienced a rather slower recovery process than other established local tourism SMEs. Actually, Participant 13 even thought of closing the business down if she could be able to find an alternative work to support her family. *“It’s not ideal because we’ve got a massive drop of income, and we are going to survive because my son started working on the road, and we probably will be closing the business down as soon as I can get a job on the roads”*, she said. In general, the story of Participant 13 has shown a quite different storyline when compared to the other stories of established tourism businesses.

## 4.5 Chapter summary

This chapter discussed the results of this study. Following the steps of the research methodology discussed in Chapter 3, the results of the study were discussed in three sections. First, the researcher presented the thematic analysis findings, which was the basis for the analysis in the next level. The thematic analysis findings highlighted the themes and sub-themes identified from the research data. Using thematic analysis, the researcher was able to extract the most interesting and important themes and relationships among the data. In short, it was found from the thematic analysis that the positive psychological capital of the participants enhanced the resilience of their businesses in post-disaster Kaikoura. Different psychological capital components could have enhanced different aspects of organisational resilience, but in general, adaptive resilience was more often enhanced by the self-efficacy, hope, optimism and psychological resilience of the participants. Second, the researcher configured a consistent general narrative story based on the thematic analysis finding, and addressed each and every principle of narrative configuration throughout the story. The aim of this general narrative story is to provide the readers with a holistic view of how the participating tourism SME owners and managers influenced the organisational resilience through psychological capital. The story was crafted in a chronological sequence, and the reflexivity of the researcher was demonstrated in the story. Third, three individual narrative stories configured under the same principle were presented after the general narrative story. The aim of these three individual narrative stories is to further answer the research questions of this study in more detail. Also, these stories further explained the main differences identified between established and new businesses in post-quake Kaikoura.

## **5 Research Implications and Conclusions**

### **5.1 Introduction**

The final chapter discusses the research implications of this study. First, the main research question as well as the four sub-questions are reviewed and addressed in section 5.2. Second, the theoretical implications of this study are discussed in section 5.3. Third, section 5.4 presents the managerial implications of this study, as well as providing some managerial recommendations. Fourth, some recommendations and implications for policy makers are provided in section 5.5. Finally, the overall limitations of the study, as well as some recommendations for future research, are also discussed.

### **5.2 Revisiting research questions**

The main research question of this study was:

***In what ways does the psychological capital of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?***

The findings of this study suggested that the majority of the participants (owners and managers of tourism SMEs in Kaikoura) could use their positive psychological capital to build and maintain the resilience of their tourism business post-disaster. Specifically, the owners and managers who have demonstrated strong positive psychological capital often used various coping mechanisms such as positive thinking, rational thinking, social reference, social support and problem-focused coping mechanisms to cope with the challenges brought about by the earthquake. It was also found that problem-focused coping was more often used by the participants who demonstrated stronger psychological capital. Through positive psychological capital as well as various coping mechanisms, tourism SME owners and managers were able to improve the resilience of their business by enhancing its adaptive capacity. The enhanced adaptive capacity was implied by enhanced leadership capacity, innovation and creativity capacity, internal and external situation monitoring and reporting capacity. However, the data also suggested that the participating businesses generally lacked feasible planning pre-disaster. Although another critical dimension of organisational

resilience (e.g., Lee et al., 2013, Stephenson, 2010), the planning capacity of the participating businesses was found to be weak when compared to their strong adaptive capacity.

Apart from these main findings, this study has also shown that business recovery for tourism SMEs was not only related to the positive psychological capital demonstrated by the owners and managers, but also to the important role played by different levels of support received by the tourism SMEs. Hence, different supports from three levels, the “macro” level, the “meso” level and the “micro” level, received by the tourism SMEs during the business recovery were identified from this study. These forms of support seemed to have also impacted the psychological capital of the owners and managers, especially the “macro” level support received from the government and the “meso” level support received from other businesses. Whether or not the business received “macro” level support from the government was based on whether they were an established business or a new business. On one hand, the owners and managers of established businesses unconditionally received financial support from the government and support from other businesses in town during the recovery phase, which positively increased their psychological capital. As a result, it was more likely that the established businesses demonstrated stronger organisational resilience. On the other hand, the new businesses did not qualify for the financial support. In addition, unlike the established businesses, the new businesses suffered from a lack of support from the other businesses in town, because they had not fully established business networks before the earthquake. These two factors both resulted in the weakened psychological capital of the owners and managers of the new businesses.

***Sub-question 1: How does the self-efficacy of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?***

The first sub-question considers how self-efficacy, the first component of psychological capital, influenced tourism SME’s resilience. The researcher found that the owners and managers who demonstrated strong self-efficacy were more likely to regulate their emotions during the business recovery, and were more likely to use problem-focused coping mechanisms to positively cope with the challenges. As a result, these owners and managers could transfer their strong self-efficacy under different circumstances and exert sound leadership through direction-setting, gaining commitment and overcoming challenges. These enhanced the leadership capacity of their business during the recovery. In addition, the

innovation and creativity capacity of the businesses was also likely to be enhanced by the strong self-efficacy of the owners and managers, because they persevered and continuously thought of innovative paths for the business regardless of the obstacles. The enhanced leadership capacity as well as the enhanced innovation and creativity capacity both suggested that the adaptive resilience of the business was likely to be strengthened by strong self-efficacy. However, as the recovery for the tourism SMEs also relied on external support, the owners and managers of the new businesses who have not received “macro” level support from the government and “meso” level support from other businesses seemed to have demonstrated weaker self-efficacy during business recovery. The data showed that they were less likely to believe in their ability to overcome the challenges and help the business to recover. Therefore, it was less likely for them to generate and implement adaptive strategies in the recovery phase, given that no financial support was provided for them to make changes. In addition, these businesses suffered more obstacles along the way because of a lack of business networks. Unlike the established businesses, the new businesses were less likely to receive help and financial support from other businesses, which also added difficulties to their recovery.

***Sub-question 2: How does the hope of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?***

The answer to the second sub-question addresses the relationship between hope, the second component of psychological capital, and organisational resilience. The data supported that the tourism SME owners and managers who have demonstrated strong hope could help their business adapt to changes with predetermined goals in mind. Hope seemed to have directly enhanced the adaptive capacity of the businesses, because the owners and managers needed to adapt to changes and cope with difficulties, both personally and from a business perspective, in order to work out pathways to achieve goals. More importantly, the results seemed to show that innovation and creativity capacity, an important indicator of adaptive resilience, was closely related to the strong hope shown by the participants. The owners and managers who possessed strong hope were determined to fulfill their business goals, and consequently, they proactively found alternative pathways for the business to achieve the goals. The alternative pathways facilitated by strong hope included innovative business strategies, innovative products and new business models. For example, when it comes to innovative business strategies, some participants changed their marketing strategies into

online marketing, and established connections with new tourism marketing platforms such as the “Ctrip” in China. When it comes to innovative products, one participant mentioned that he was trying to organise “earthquake tours” for tourists in the future to educate people on the significant impacts that the 2016 Kaikoura earthquake had had on his business. When it comes to innovative business models, the second individual narrative story explained that one tourism business changed its target market to Chinese nationals after the earthquake, and consequently changed the marketing strategy, as well as the value that the business was trying to deliver to its new customers. More often, these businesses have shown that they have an organisational culture that embraces innovation and creativity. Thus, to answer this sub-question, the hope of these tourism SME business owners and managers was likely to enhance the adaptive resilience of the businesses in post-disaster Kaikoura. However, when compared with the business owners and managers of the established tourism SMEs, the new business owners and managers demonstrated weaker hope throughout the post-disaster period. Not receiving financial support from the government seemed to have weakened the agency thinking of those owners and managers, thus limiting the ability for them to enhance the resilience of their businesses through the psychological capital component of hope.

***Sub-question 3: How does the optimism of owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?***

The third component of psychological capital is optimism. It was found that the optimism demonstrated by the owners and managers was also likely to enhance the organisational resilience of tourism SMEs in post-disaster Kaikoura. Most often, the optimism identified among the research participants seemed to be closely related to their venture creation intention. Also, the optimistic owners and managers could effectively use coping mechanisms such as positive thinking and rational thinking to demonstrate positive emotions in the face of the earthquake. As a consequence, the positive emotions were likely to broaden their problem-solving skills and thus the adaptive capacity of their businesses. The enhanced adaptive capacity of the businesses was realised through the “thought-action” process facilitated by optimism and positive emotions. For example, some owners and managers who demonstrated optimism and positive emotions could view the earthquake as an opportunity for the business. Consequently, they were more likely to come up with adaptive strategies to seize upon this opportunity. Another important finding under this question addressed how realistic optimism contributed to the resilience of the business. It was supported by the data



that most participants have shown realistic optimism instead of being over-optimistic in the recovery phase. These owners and managers were able to moderate their optimism to prevent feeling overwhelmed when things did not live up to their expectations. Through realistic optimism, the owners and managers could enhance the internal and external situation monitoring and reporting capacity of their business, because they had the awareness to take advantage of beneficial situations while at the same time consider the issues associated with their business under possible negative conditions. To conclude, the adaptive capacity of the business seemed to be enhanced by the underlying optimism of business owners and managers, which was supported by the research data. However, the optimism of the owners and managers could also be influenced by the different support received in the recovery phase. The owners and managers of the new tourism SMEs seemed less likely to demonstrate adequate optimism towards the business recovery because they received less financial support from the government. Therefore, it was less likely that their optimism contributed positively to enhance the resilience of their businesses.

***Sub-question 4: How does the psychological resilience of owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura?***

Psychological resilience, the fourth component of psychological capital, was found to be of great importance to the recovery as well as the resilience of the participating businesses. Since most of the owners and managers agreed on the process view of psychological resilience, it was demonstrated by the data that psychological resilience developed through previous experience and events seemed to have positively enhanced the resilience of their businesses during the recovery phase. The owners and managers could capitalise on their psychological resilience developed through previous experience to enhance both the planning capacity and the situation awareness capacity of their businesses after the earthquake. For example, the owners and managers who have been through the 2010-2011 Christchurch earthquake sequence were more likely to have in place planning strategies that could enhance the internal and external situation monitoring and reporting capacity of the business to adapt to the earthquake. One participant mentioned that the owner of her business had arranged insurance as well as an emergency response plan for the business. This insurance was actually what helped the business through because the business had not qualified for the government financial support. In addition, given that the business owner had experienced the Christchurch earthquakes, all the staff in the business were aware of the consequences after

an earthquake. Also, not surprisingly, the owners and managers who had not been through previous earthquakes or other adverse events were found to be less resilient when facing the 2016 Kaikoura earthquake. As a consequence, their businesses lacked sufficient planning capacity and adaptive capacity after the earthquake. Then, the research data also showed that resilient owners and managers were more likely to use problem-focused coping mechanisms to enhance the internal and external situation monitoring and reporting capacity, the decision making capacity, and the innovation and creativity capacity of their businesses during the recovery phase. This also implied that the adaptive resilience of the businesses seemed to have been enhanced through the psychological resilience of owners and managers. Last but not least, the psychological resilience identified among these SME owners and managers seemed to be closely related to their entrepreneurial orientation and the preference to use a firefighting approach in overcoming challenges, because the resilient owners and managers could quickly bounce back from the earthquake and start to evolve plans for the business. The entrepreneurial orientation and firefighting approach demonstrated by the participants once again showed that, in general, the tourism SMEs in this study relied more on adaptive capacity instead of planning capacity.

## **5.3 Theoretical implications**

### **5.3.1 How does psychological capital contribute to organisational resilience**

Based on the literature on psychological capital, organisational resilience and disaster management, the findings of this study suggest a number of theoretical implications.

To begin with, the findings of this study extend and broaden several crucial viewpoints in the literature on psychological capital discussed in Chapter 2. The participants have generally demonstrated strong self-efficacy through magnitude, strength and generality after the 2016 Kaikoura earthquake, and these three dimensions of self-efficacy identified in this study are similar to the theories suggested by the literature (e.g., Bandura, 1977; Gist, 1987). In addition, it was also found from the data that the participants who were in leadership positions could successfully exercise LSE and lead the business to overcome the challenges brought about by the earthquake. This finding addressed Paglis and Green's (2002) proposition of LSE, and applied their theory in a post-disaster context. Moreover, it also emerged from the data that the self-efficacy of the participants could potentially contribute to

the innovation and creativity capacity of the business. When combined with perseverance, these participants who have demonstrated self-efficacy were more likely to continuously think of new paths for their business during the recovery phase. This pattern identified from the data resonates well with the proposition from Ahlin et al. (2014), who suggest that the self-efficacy of entrepreneurs in SMEs can predict stronger creativity.

When it comes to optimism, the data has implied that the participants who have demonstrated optimism were able to take credit for the positive happenstances in their life, regard the causes of the desirable events as being within their control, and attribute the causes of the negative events to be external, specific and temporary. These are all confirmed by the theories outlined in the literature review chapter (e.g., Luthans et al., 2007; Seligman, 1992). In addition, the realistic optimism identified from most of the participants is supported by those who have advocated for the importance of optimistic leadership rather than pessimistic leadership (e.g., Luthans et al., 2007). The participants who have demonstrated realistic optimism have exercised the function of optimistic leaders, because their optimism was combined with realism. As a result, they dared to dream and face changes head on, as mentioned in the literature (Luthans et al., 2007). More importantly, this study seems to contradict some viewpoints in the literature that criticise entrepreneurs for their over-optimism (e.g., Ucbasaran et al., 2010). Ucbasaran et al. (2010) suggest that entrepreneurs are a group of people who are more likely to be over-optimistic than non-entrepreneurs, while this study has demonstrated that most of the participants remained realistically optimistic during the business recovery.

Hope is another component of psychological capital, and the findings regarding hope in this study also have theoretical implications. The three crucial components of hope, namely, goal, pathway and agency, were all, to some degree, shown by the hopeful participants in this study. This confirmed the literature which highlights the important roles of these three components in hope theory (e.g., Snyder, 2002). This study has shown how the participants have applied the goal, pathway and agency in their hope to contribute to the adaptive resilience of the business. The participants who have demonstrated strong hope could effectively set business goals and work out pathways to achieve the desired goals. In doing so, they were able to adapt to changes and cope with difficulties, both personally and from a business perspective, along the way. More importantly, with strong agency thinking, they showed strong self-determination to persevere and achieve the goals for their business. In

addition, the study showed that the pathway component in hope theory has played an important role in enhancing the innovation and creativity capacity of the tourism SMEs. The participants who have demonstrated strong hope were able to proactively find alternative pathways for their business, and the innovation and creativity capacity was demonstrated in this process. This finding seems to reflect that of Sweetman et al. (2011), who suggest that people with high hope can utilise the way power in hope (pathway) and come up with creative problem solving strategies. However, this finding of the study goes beyond the suggestion from the literature, and implies that the creative problem solving resulting from individual psychological capital can actually enhance the adaptive resilience of the business through enhanced innovation and creativity capacity.

In terms of the last component of psychological capital, psychological resilience, this study has provided more theoretical implications. It was shown by this study that most of the participants view psychological resilience as a process rather than a personal trait, and a few regarded their resilience as an inborn trait. This finding resonates well with the literature which categorises psychological resilience under the process view and trait view (e.g., de Vries & Shields, 2006; Hall et al., 2018). In addition, this study has identified several factors that have possibly strengthened the psychological resilience of the participants, namely, previous experience with adverse events, upbringing and age. All the three factors identified in this study can reflect on the process view of psychological resilience. This study also showed similar findings with de Vries and Hamilton (2016), who suggest that some of the small business owners can view the 2010-2011 Christchurch earthquake sequence as a catalyst to change their existing business models. This study has identified the same pattern among the SME owners and managers in Kaikoura and further implied that this kind of psychological resilience can enhance the adaptive resilience of the businesses through upgraded business models and strategies. For example, the second individual narrative story presented in section 4.4.2 showed that Participants 11 could perceive the earthquake as an opportunity to upgrade their business, so they had actively searched for ways to enhance the business. Consequently, they noticed the importance of Chinese tourists in Kaikoura, and showed outstanding situation awareness upon this emergent customer market through carefully monitoring the development, the preferences and the behaviour of Chinese tourists. This strong situation awareness enhanced the adaptive resilience of their business, and the business quickly adapted to the new market and secured a reliable revenue base. In this way, these participants seem to have transferred the negative influence of the earthquake into new

growth opportunities for their business. Finally, this study has also found that the resilient participants were more likely to use a firefighting approach. Drawing from the literature, a firefighting approach and an entrepreneurial orientation are often found in an SME context, highlighting the fact that owners and managers of SMEs are more likely to generate immediate plans and show adaptiveness and contribute to the adaptive resilience of their businesses in the post-disaster period (Ates & Bititci, 2011). This study has highlighted the importance of the above argument suggested by the literature, and has explained in section 4.2.4.6 how the resilient participants who relied on firefighting approaches positively influence the adaptive resilience of their business.

The main findings of this study suggest that tourism SME resilience can be positively influenced and enhanced by the positive psychological capital of the business owners and managers in a post-disaster context. This can potentially address the gaps in the literature identified in Chapter 2. There is currently no study that investigates the relationship between psychological capital and organisational resilience. Instead, most of the studies focus on the contributing role of positive psychological capital in enhancing business performance and facilitating positive organisational change (e.g., Avey et al., 2008; Luthans et al., 2005; Luthans et al., 2008). As Hall et al. (2018) suggest, the relationships between individual psychological resilience and organisational resilience, as well as other types of resilience, are not well articulated in the literature. It is reasonable to say that this study has addressed some possible patterns and relationships between psychological resilience and organisational resilience, which illuminates some of the gaps in the literature identified by Hall et al. (2018). In addition, based on Hall et al. (2018), it is also obvious to see that this study contributes to the organisational resilience literature by identifying the contributing role of the other three psychological capital components (self-efficacy, hope and optimism) on organisational resilience. Moreover, this study has also demonstrated some ideas in the organisational resilience literature by confirming that SMEs often show remarkable adaptive resilience post-disaster while lacking planning before the disasters (e.g., Ates & Bititci, 2011; Orchiston, 2013; Vargo & Seville, 2011). More importantly, this study has identified the specific aspects of the adaptive resilience that the tourism SMEs in Kaikoura have mostly demonstrated in the post-disaster period, namely, enhanced leadership capacity, enhanced internal and external situation monitoring and reporting capacity, enhanced capability and capacity of internal resources, and enhanced innovation and creativity capacity. Last but not least, this study has applied various organisational resilience models in post-disaster Kaikoura, and the two

dimensions of organisational resilience emerged from the research data, namely, planned resilience and adaptive resilience, are supported by the literature (e.g., Lee et al., 2013; McManus, 2008; Stephenson, 2010).

Finally, the findings have several theoretical implications for the disaster management literature and tourism studies. The disaster management literature suggests that tourism businesses generally lack preparedness and proper disaster management capabilities (e.g., Cioccio & Michael, 2007; Faulkner, 2001; Henderson, 2007; Hystad & Keller, 2008; Orchiston, 2013). This study has to some degree confirmed the literature, while also suggesting that tourism SMEs may possess unique capabilities and use their own path when facing disasters. Natural disasters can impose significant damage to the tourism sector (Biggs et al., 2012; Orchiston, 2013), and this study has suggested that tourism SMEs can still bounce back from disasters through their adaptive capacities, entrepreneurial orientations, fast decision-making, and innovation and creativity capacities.

### **5.3.2 The role of coping mechanisms**

Apart from the theoretical implications discussed in section 5.3.1, it is also important to discuss the implications of the various coping mechanisms identified from the findings of this study. The various coping mechanisms identified from this study seem to be the way in which the psychological capital of the business owners/managers has an influence on organisational resilience. This means that through different coping mechanisms such as positive thinking, rational thinking and problem-focused coping the psychological capital has a positive influence on the adaptive resilience of the tourism businesses. This finding resonates well with several previous studies that have confirmed the mediating role of coping mechanisms in the relationship between psychological capital and workplace performance (e.g., Ding et al., 2015; Rabenu et al., 2017), and at the same time expands the literature by introducing the contributing role of individual coping mechanisms in developing organisational resilience.

More specifically, this study has identified the following patterns. First, tourism SME owners and managers who have demonstrated strong self-efficacy were more likely to immediately focus on the problems and use problem-focused coping mechanisms to adapt and change the adverse situation during the recovery phase. The problem-focused coping mechanisms

effectively helped these owners and managers to find solutions for their businesses and eventually enhanced the adaptive resilience of the businesses.

Second, the optimistic owners and managers were likely to demonstrate positive emotions through positive thinking and rational thinking after the earthquake. These positive emotions were then likely to strengthen the “thought-action” process through which the post-disaster business performance could be enhanced, which is supported by Youssef and Luthans (2007). This finding can also broaden the ideas in some previous studies (e.g., Avey et al., 2008; Folkman & Lazarus, 1985; Prayag, 2016). For example, this study built on Folkman and Lazarus’ (1985), as well as Prayag’s (2016), argument on rational thinking and confirmed that the participants could regulate their emotions and step back from the negative situation to take an objective view through rational thinking. In addition, Avey et al. (2008) suggest that through positive psychological capital, it is likely that people demonstrate positive emotions that will eventually contribute to the attitudes and behaviours relevant to positive organisational change. This study has also confirmed the argument by Avey et al. (2008), and further suggested that this “positive organisational change” could be seen as developing organisational resilience in this study.

Third, the literature suggests that hope is not only one component of psychological capital but also a coping mechanism (Hmieleski & Carr, 2008), and this study has contributed to the literature by identifying how can the participants use hope to cope with the post-disaster challenges and eventually contribute to the resilience of their businesses. Given that hope has three dimensions – goal, pathway and agency thinking – it was informed by this study that hopeful owners and managers could make strategies according to the business goal, come up with different pathways to reach the goal, and eventually motivate themselves via strong agency thinking to transfer the pathways into adaptive resilience for their businesses during the business recovery.

Fourth, it was also found from this study that various emotion-focused coping mechanisms such as emotional support and avoidance helped the participants to regulate negative emotions after the earthquake. As a result, these participants became more resilient and bounced back from the negative emotions. This finding resonates well with some other findings from previous studies (e.g., Gloria & Steinhardt, 2016; Tugade & Fredrickson, 2004). More importantly, this study has advanced previous knowledge by suggesting that it was the

ability to use problem-focused coping mechanisms that actually distinguished resilient participants from those who were less resilient. The resilient participants could perceive that the adversities in their lives were controllable, and were more likely to have a staunch acceptance of realities, as supported by the literature (Luthans et al., 2004; Riley & Park, 2014). Finally, this study has identified that the resilient participants who utilised problem-focused coping mechanisms could quickly establish situation awareness for their businesses, because they needed to monitor the situation both internally and externally to solve the immediate problems faced by their businesses. They were also likely to make rapid and reliable decisions after quickly settling down their negative emotions and concentrating on the problems. In addition, they were also more likely to come up with innovative and creative business strategies when they focused on the problem rather than on their emotions. Concluding from the above arguments, the situation awareness capacity, the decision making capacity, as well as the innovation and creativity capacity that these resilient participants have invested in their business, all implied enhanced adaptive resilience as supported by the literature (e.g., Lee et al., 2013; Stephenson, 2010). In this way, the findings concerning coping mechanisms in this study have contributed to the literature by introducing the possible relationships between psychological capital, coping mechanisms and organisational resilience.

### **5.3.3 Methodological implications**

In terms of research methodology, this study has advanced the use of narrative analysis in the following ways. First, narrative analysis has gained popularity in the social sciences in the last 30 years, but there is no agreement about how this methodology should be conducted (Mura & Sharif, 2017). This study has advanced narrative analysis as a research methodology through carefully addressing its diachronicity, hermeneutic composability, referentiality, normativeness and narrative accrual (Bruner, 1991). For example, the normativeness of the narrative stories was shown by the story form assigned to both the general narrative story and the three individual narrative stories. The referentiality and hermeneutic composability were: explained in the general narrative story; demonstrated by clarifying the possible differences between the actual meaning of the text and the interpreted meaning provided by the researcher; and resolved by making each narrative story consistent with its comprehensive plot. The diachronicity and narrative accrual characteristics were addressed through carefully identifying the chronological sequences, as well as the detailed causal relationships among the elements and happenings in each narrative story. In this way, this study has contributed to



the trustworthiness of conducting narrative analysis. Second, this study has contributed to the knowledge of narrative analysis by distinguishing the differences between narrative analysis and analysis of narratives, which was not well explained and emphasised by some recent studies which used narrative analysis (e.g., Fernandez-Balhoa & Gonzalez-Calvo, 2017; Nairn, 2017). Third, this study has also filled in another gap that Mura and Sharif (2017) have identified. Mura and Sharif (2017) suggest that narrative analysis has been neglected by tourism scholars, and tourism scholars tend to neglect important contextual aspects of narrative analysis, such as researcher's reflexivity and situational context. This study contributes to this methodology by broadening its use in the tourism study. Moreover, this study has incorporated the important contextual aspects of the methodology to increase its authenticity. For example, the content sensitivity and negotiability of the narrative analysis were explained at the end of the general narrative analysis, highlighting that the aim of the narrative analysis was not to reach an unbiased result but appreciating the role of interpretation and reflexivity, which followed the guidance of an interpretivist paradigm taken in this study. These are all considerations that must be included in narrative analysis, otherwise it is not consistent. Fourth, the combination of a thematic analysis and a narrative analysis in this study has advanced the use of these two research methods, and has addressed the third issue that Mura and Sharif (2017) have identified in current studies. Mura and Sharif (2017) point out that although thematic analysis is the method privileged by researchers to conduct narrative analysis in the tourism study, the majority of the papers report stories according to major themes instead of attending to the detailed aspects of people's accounts and the internal organisation of the stories. To solve this problem, this study has, first, configured one general narrative story based on the themes and patterns identified through the thematic analysis, and then configured three representative individual narrative stories to go beyond the common themes and address the detailed aspects of the protagonists' accounts. These detailed aspects included the specific chronological orders, the specific happenings and causal linkages, and the detailed internal organisations of each different individual narrative stories. By doing so, this study suggests that explanatory individual narrative stories should be configured to supplement the potential limitations resulting from simply combining thematic analysis and narrative analysis. Thus, this study has overcome the limitation that Mura and Sharif (2017) identified from previous studies that incorporated thematic analysis with narrative analysis, and further confirmed the importance of triangulation in qualitative studies as suggested by the literature (e.g., Leech & Onwuegbuzie, 2007).

## 5.4 Managerial implications

The results of this study provide a number of managerial implications. To begin with, this study has clarified the important role of positive psychological capital both for individuals and for tourism SMEs. Thus, it is important to develop the psychological capital in the workplace, as suggested by this study. First, based on the suggestion of Luthans et al. (2007), it is recognised that self-efficacy can be developed through vicarious learning and modeling by the SME owners and managers. As some of the participants mentioned, learning from mentors and friends who were successful in implementing business strategies could inspire and encourage them during the recovery phase. It is recommended by this study that learning from successful role models, peer-mentors, and even informally being “shown the ropes” by inspiring colleagues in the workplace can develop the psychological capital component of self-efficacy, as suggested by Luthans et al. (2007, p. 45). In addition, given that the tourism SMEs are small in size, vicarious learning and modeling may be more suitable and feasible for developing self-efficacy in the SME context than formal training by a far-removed professional trainer or consultant (Luthans et al., 2007). Because success builds confidence (Luthans et al., 2007), the owners and managers can also develop their followers’ self-efficacy through giving positive feedback and affirmation to the staff. Second, the psychological capital component of hope can also be developed in the workplace. The research data has already shown that some participants were able to develop hope by setting goals. Additionally, this study suggests that other methods for developing hope can be learned by SME owners and managers. For example, the process of stepping, which stands for breaking down difficult and long-term goals into smaller and manageable milestones, can be learned by SME owners and managers to develop hope in the workplace (Luthans et al., 2007). During business recovery, the owners and managers are encouraged to write down the weekly or monthly progress of what they have achieved instead of only focusing on the final result. Third, realistic optimism should also be developed in the workplace. Drawing from Schneider (2001) and Luthans et al. (2007), realistic optimism can be developed through leniency for the past, appreciation for the present, and opportunity-seeking for the future. Leniency for the past is a positive reframing technique that allows owners and managers to realistically reinterpret the adverse events that happened in the past to search for positive aspects of the events and neutralise the negative aspects (Luthans et al., 2007; Schneider, 2001). For instance, owners and managers can learn to think of the 2016 Kaikoura earthquake

and other difficult situations in an objective way, and to find out what new opportunities these events could have brought to their business in the long run. Owners and managers are also encouraged to have an explanatory style that allows them to learn to appreciate the present. What the business has achieved at the present should be assessed realistically and optimistically. In this way, this study suggests that it is possible for owners and managers who have demonstrated inadequate hope to redirect their perspectives away from dwelling on the negatives and toward concentrating on the positives (Luthans et al., 2007). The next step for developing realistic optimism in the workplace is opportunity-seeking for the future. Future goals and plans are particularly important for business recovery. Hence, it is crucial for owners and managers to focus on the dynamic environment, to adapt to the changing situations, and to set future goals based on the opportunities that the future presents (Luthans et al., 2007; Schneider, 2001). Fourth, the discussion proceeds to developing the last component of psychological capital, psychological resilience, in the workplace. From a managerial level, this study has shown that psychological resilience can be developed through learning from life experiences. As a consequence, it is suggested by this study that local tourism businesses should occasionally work together, and organise panel discussions to facilitate the exchanges of ideas. In this way, the owners and managers of the new businesses can learn from those owners and managers who have developed strong psychological resilience through life experiences. In doing so, the connectedness among the local businesses can also be enhanced, which is another effective way to build psychological resilience (Reich, 2006).

Apart from the implications and recommendations in terms of developing psychological capital in the workplace, this study also has some managerial implications of developing SME resilience. This study has identified that the tourism SMEs demonstrated inadequate planning capacity when compared to their adaptive capacity. However, several feasible approaches for SMEs to enhance disaster planning can still be found from the literature stream as well as various reports. For example, when thinking back to the 2010-2011 Christchurch earthquake sequence, Resilient Organisations has identified that having established business relationship is one of the most important assets for an SME to build resilience in good times and bad (Vargo, n.d.). The results of this study also aim to emphasise the importance of building effective business relationships during both business as usual and post-disaster recovery. Drawing from the literature, the external relationships and resources capacity is also one of the business capacities to enhance the planned resilience before a

disaster (e.g., Lee et al., 2013; Stephenson, 2010). It was found through this study that the “meso” level support has positively contributed to the recovery process of some of the tourism SMEs, while the new businesses to some degree suffered from a lack of business networks. Thus, it is important to recommend that the established tourism SMEs should maintain and further develop business relationships, while the new businesses should seek to develop new business relationships. As discussed in Chapter 4, Participants 8 held the “Kegkoura” beer festival to attract tourists as well as to introduce themselves to the township during the business recovery. Local events like this can raise the wider profile of the business, and it is also possible for other new tourism SMEs which suffer from inadequate or no business partnerships to learn from such events. Moreover, Orchiston (2013) also suggests that the interconnectivity of tourism networks between individuals, businesses and communities has the potential to enhance organisational resilience. As a consequence, considering Orchiston’s (2013) suggestion, it is recommended by this study that local tourism SMEs should work collectively and proactively towards preparing for future disasters. Last but not least, the managerial implications of this study also include introducing several tools, which can be applicable by SMEs to enhance planned resilience pre-disaster. For example, enterprise risk management (ERM) is one fundamental tool for building organisational resilience (Hall et al., 2018). Although ERM is more often found in larger firms, studies have shown that ERM can be modified and applied to SMEs with less sophisticated details (e.g., Brustbauer, 2016). The adjusted ERM model for SMEs includes risk identification, risk assessment and risk monitoring. Using such tools can help the entrepreneurs, owner-operators and managers in tourism SMEs identify, assess and monitor risks, raising the risk awareness of the business and facilitating the business in better understanding and adjusting to the ever-changing environment (Brustbauer, 2016). The results of this study can encourage the SMEs to learn about such tools in the future, which can hopefully to some degree facilitate risk management and feasible planning strategies for them.

## **5.5 Implications for public policy makers**

Drawing from Orchiston (2013), developing disaster plans may place an unrealistic demand on small businesses, because owners and managers do not have sufficient time and resources to fulfill this request. As a consequence, apart from the managerial implications discussed above in section 5.4, the researcher believes that there is a need for intervention and training from policy makers to help SMEs further develop organisational resilience.

First, based on the research results, there is an urgent need for policy makers to revise and refine the inclusion criteria of government financial support in Kaikoura. Because of limited operating experience, it is reasonable that new businesses did not have adequate operational expenses and incomes before the earthquake. However, lack of operational expenses seemed to have become one huge obstacle for them to apply for financial support and to recover from the disaster. MBIE (n.d.) reports that there are few government grants or funding schemes available to new businesses, and this holds true in post-disaster Kaikoura. It is recommended that the voices of the new businesses should be heard by policy makers in order to change the criteria for government grants should any future disaster negatively influence the community. Also, it is recommended that policy makers should perhaps inform local businesses, especially new businesses, about the importance of signing up with the local office of the Regional Business Partner Network (MBIE, n.d.). This is because local business advisors can introduce the new businesses to business networks, as well as advise them on other available government assistance that they might be eligible for.

Second, this study raised the need for implementing community emergency planning in the Kaikoura District, given that support from the government in terms of public policy should be available to assist local businesses to build planned resilience. There are existing approaches elsewhere for policy makers to learn from and then apply to the Kaikoura context. For instance, Orchiston (2013) suggests that an Emergency Response Plan (ERP) has been developed in Fox Glacier to provide the necessary welfare and support to locals and tourists. The ERP developed in Fox Glacier adopted an “all hazard” approach, which included the risks posed by floods, storms, landslides, road accidents and earthquakes in the region (Orchiston, 2013, p. 491). It is highly recommended by this study that such a policy approach should be learned after the 2016 Kaikoura earthquake, because local tourism SMEs can

benefit from a community emergency response plan through an increased ability to cope with a range of scenarios in the future, and eventually enhance their organisational resilience through increased community engagement (Orchiston, 2013). However, it is also important that local businesses which experienced the disasters should not be isolated from the community decision-making process, as Participant 13 in this study pointed out that “...*The NCTIR (North Canterbury Transport Infrastructure Recovery) won't listen to the locals, every time they don't listen to the locals, they get problems*”. To ensure that local businesses are involved in this process, it is also recommended that policy makers should look into the actual situations and difficulties faced by different businesses in the region and make an ERP accordingly. For example, the Canterbury Chamber of Commerce or regional tourism boards can empower local business owners and managers to come together to identify potential risks and develop response plans. In addition, the Resilient Organisation (2012) presents that after the Canterbury earthquakes, Recover Canterbury carried out activities such as assisting in the creation of local business associations, and the coordination of local SMEs, and engaging in ongoing feedback processes to ensure that the actual issues faced by local SMEs were communicated effectively. This practice can also be learned by policy makers after the 2016 Kaikoura earthquake in order to ensure that the actual concerns of local tourism SMEs are taken into consideration and addressed properly before making any community emergency plan.

Third, as a lack of planning capacity identified among the tourism SMEs in Kaikoura can result in their vulnerability, it is recommended that policy makers should perhaps link the local tourism SMEs to mentors and organisations that can help these businesses build related stress testing plans for unexpected events. The stress testing plan is known as participation in exercises (Lee et al., 2013; McManus, 2008). It often involves simulations and scenarios designed for the organisation to practice response and validate plans accordingly (Lee et al., 2013). After the Canterbury earthquakes, MBIE has provided initiatives that offer funding to SMEs to pay the registration costs for Business Mentors NZ (Resilient Organisations, 2012). The Business Mentor NZ programme can provide SME owners and managers with volunteer mentors to assist them building post-disaster organisational resilience. Consequently, it is recommended that policy makers should consider providing the same funding project for local tourism SMEs in Kaikoura to enhance their planning capacity.

Fourth, it is also recommended by this study that regional training sessions should be organised in order to empower the SMEs who have experience in disaster situations and have successfully navigated these situations to present their experiences. These businesses might be invited to discuss how they identified alternative pathways and growth opportunities for their businesses, and thus successfully dealt with the challenges brought about by the disaster. They might also discuss how they used the disaster as an opportunity to upgrade their business. Such discussions may enable owners and managers of the new business to develop feelings that they can cope with challenges when they arise or foster a sense of self-efficacy, hope and optimism, and feelings of psychological resilience that they too can cope in crisis situations. These regional training sessions can also help to build social networks among SME businesses or “meso” level support networks whose support can be drawn on in a disaster situation. Thus, public policy makers have a critical role to play in helping tourism SMEs develop capacities and business networks enhancing their resilience, which can enable them to more effectively cope if and when disasters strike.

## **5.6 Overall limitations of the study**

Apart from several challenges and limitations associated with the research methodology that have been presented in section 3.4, there are also a number of limitations of the study that need to be addressed in this final chapter.

First, Gubrium and Holstein (2009) suggest that the narrative work and the narrative environment are reflexively intertwined, thus the internal organisation of the story varies as a result of to whom the participants are telling the story. The recollections, explanations and emphases on the life events may be different in different circumstances. For example, the participants may tell a slightly different story to a stranger in contrast to what they might have told to their intimate friends. Although the researcher has identified the contextual features of each story as indicated in the early discussion, this study has not necessarily touched on the interplay between narrative work and its specific environment in terms of whether the interview data would vary when the listener was another person but not the researcher herself. As a consequence, as mentioned before, the researcher conducted the analysis carefully and thoroughly, and configured the narrative stories that were largely based on the actual fact that the participants narrated. In addition, the researcher’s reflexivity was

reflected by phrases such as “it seems that”, “it is reasonable to assume that”, “it is possible to conclude that” and the relevant evidence extracted from the literature. In addition, the researcher has addressed this issue at the end of the general narrative story to avoid complexity. However, this limitation and the intertwined nature of narrative work and its environment are still important to be acknowledged by the researcher as well as the readers of this thesis.

Second, another limitation of this study should be acknowledged as the actual result of this study is ongoing. Due to the time duration of the current study, the data collection was completed in November 2016. As a consequence, the time duration has to some degree limited the research result. For instance, the insufficient psychological capital demonstrated by one owner of a new tourism SME, as well as the corresponding weaker resilience of her business, were configured as an individual narrative story following the general narrative story in Chapter 4, but the result may be different if further research is to be done in the future. Psychological capital is developable in nature, and this nature can potentially imply a different result if the study is conducted at different times. Thus, the researcher now acknowledges the second limitation of the current study, and this question can be further resolved by future research on the issue.

Third, the researcher acknowledges that some inherent weaknesses of the qualitative research methodology adopted in this study may appear if the research needs to be focused on a macro-level of analysis, as suggested by the literature (Dawson & Hjorth, 2011). The researcher acknowledges that the sample size in this study could have limited the results and cannot fully represent a collective account of the SME tourism industry in Kaikoura as a whole. Hence, as suggested by Dawson and Hjorth (2011), the insights provided by the narrative analysis with limited sample size can be connected with a vast amount of field study time and material, which could be assisted by more effective and efficient quantitative research methods in the future.



## **5.7 Areas of future research and recommendations**

This section presents some of the recommendations for the possible future research directions inspired by this study.

First, drawing from the first limitation mentioned in section 5.6, it is possible that the source for narrative configuration can be more diverse. For example, apart from the data collected from individual interviews and field notes, future researchers can also include other data collected from interviews with the family members and close friends of the participants, the business websites of the participants' businesses (if available), online business reports, regional government reports, and reports from the local tourism board. Although it is not the aim of a narrative analysis or any other qualitative research methodology to reach absolute objectiveness and truth, it is recommended that different sources should be included in future research to enrich the content and the plot of the narrative stories.

Second, based on the second limitation addressed in section 5.6, it is also recommended that follow-up research should be conducted on the tourism SMEs in Kaikoura to investigate the up-to-date status of the businesses. For example, until now, State Highway 1 is reopened for daytime travel (NZ Transport Agency, 2018). Although there is still a temporary closure in the night-time, the situation is far more pleasant when compared to the situation during the time that this study had been conducted. Based on the results of this study, the researcher believes that the reopening of the main highway that connects Picton, Kaikoura and Christchurch can bring benefits to the local tourism SMEs. Thus, all the possible changes in Kaikoura require further research to present the latest status of the local tourism SMEs.

Third, on a methodological level, the researcher calls for more applications of narrative analysis in the tourism study, especially when studying the owners/managers and the entrepreneurs in tourism SMEs. There have been some tourism studies incorporating narrative analysis to study tourist and consumer experiences (e.g., Bosangit, McCabe, & Hibbert, 2009; Mura, 2015; Sheng & Chen, 2013). However, there are extremely scarce tourism studies that use narrative analysis to investigate the life experiences of the tourism business operators, the owner-managers and the entrepreneurs. The researcher believes that it is necessary to study how tourism SMEs actually operate and manage disasters through

learning from these operators, because it turns out from this study that they indeed have a very direct influence on the business.

Fourth, as evidence can be found from the literature implying that individual psychological capital can possibly lead to collective psychological capital in teams (e.g., Luthans et al., 2007), it is possible that the future research can look into the growing psychological capital in teams and larger collectives. For example, based on the fact that personal self-efficacy can be developed into collective efficacy in a group (Bandura, 1997; Luthans et al., 2007), it is recommended that future research should be conducted on studying the relationships among such collective psychological capital, business performance and organisational resilience.

Last but not least, since this study has proposed a relatively under-researched topic, therefore, there are a number of directions and opportunities to expand upon this study for future researchers. This study is only the starting point of incorporating psychological capital into the study of organisational resilience. This under-researched topic requires more researchers to conduct both qualitative and quantitative work in order to broaden the knowledge for this generation and benefit more businesses. Anyhow, building organisational resilience is crucial for both SMEs and other businesses during both business as usual and any crisis, so it is important for researchers to identify any possible factors, like the psychological capital of business owners and managers, that can positively influence the resilience of businesses in today's world.

## **5.8 Concluding remarks**

The overarching research question of this study was to investigate in what ways does the psychological capital of business owners/managers influence the organisational resilience of tourism SMEs in post-disaster Kaikoura. The literature review has provided the solid theoretical background for this study, and has also confirmed that this research could contribute to several gaps identified from previous studies. The adoption of a comprehensive thematic analysis, as well as a comprehensive narrative analysis in this study, helped the researcher to identify every possible pattern and relationship between each one of the psychological capital components demonstrated by the owners/managers and the resilience of their tourism SMEs. To conclude, this study has developed a research direction, as well as a

theory that linked together positive psychological capital and organisational resilience. It has contributed to the literature stream by: finding the answers to the theoretical gaps identified from the organisational resilience literature; providing new research findings to the existing psychological capital and organisational resilience literature; comprehensively introducing and carefully addressing each one of the requirements to conduct a narrative analysis in the tourism study; and emphasising the importance of both positive psychological capital and organisational resilience for tourism SMEs in the post-disaster period. The findings of this study are vital for the individual wellbeing of the owners/managers in local tourism SMEs. In addition, the study findings have also provided guiding opinions for the tourism SMEs in post-disaster Kaikoura to learn about organisational resilience, as well as strengthen their resilience in novel ways in an ever-changing environment.

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## 7 Appendices

### 7.1 Interview questions

#### *Background*

- Can you give me a very brief introduction of your business and your role in the business?
- How has the earthquake affected the business? (closed for how long / % of customers decreased / financial) What about psychological aspects of yourself?

#### *Self-efficacy*

- Can you give me some examples from your personal life of how you have dealt with challenges? When challenges occur, do you persevere? Can you give me an example?
- Can you tell me the story of what your goals and direction have been for the business after the earthquake? How have these changed from before the earthquake?
- How has your relationship with your employees changed since the earthquake? What's the best thing/worst thing? Can you tell me about a challenge brought on by the earthquake and how you faced or dealt with that challenge?
- When the earthquake occurred, did you have the confidence that you would be able to overcome the challenges brought by it? In your opinion, which of your own personality traits made you able to overcome the challenges?

#### *Hope*

- If you are confronted with a challenge in your business or personal life how would you describe your approach in dealing with that challenge? If yes, can you give me some examples from your own personal life where you have displayed this trait?
- Do you feel you are in control of your own destiny? If yes, can you give me some examples from your personal life that show that you are in control of your destiny. If no, please tell me why.



- What were your personal goals and the business goals after the 2016 earthquake? How do you find ways to accomplish your personal goals and business goals? Can you give me some examples of both?
- What do you normally do if you find obstacles and challenges in your business or personal life? (Proactively find ways / Plan B) Please give me some examples from your experience regarding your work.

### ***Optimism***

- What does optimism mean to you? From 1 to 10, how will you assess yourself in terms of optimism with 1 being the lowest and 10 being the highest?
- Think of one positive event in your life. Of the factors that you believe to have contributed to the positive event, which ones do you think are within your control, which ones do you think are not within your control?
- Now think of one negative event in your life. Of the factors that you believe to have caused the negative event, which ones do you think are external factors that are not controllable by yourself?
- If there are factors that you think have positively contributed to the recovery process of the business, which ones can you safely count on to exist should you need them in the future? Which ones do you consider to be temporary and one-time happenstances?
- If there are factors that you think are not within your control, what do you normally do and how do you cope with them? Can you give me an example?

### ***Psychological Resilience***

- If I say someone is resilient as a person, what personal traits come to your mind about that person?
- Can you give me some example of when you have shown resilience?
- What factors do you think you will need as a person to bounce back from the 2016 earthquake?
- Do you think that resilience is something inborn or something that can be developed? Why do you think it is inborn (or can be developed)? If you think resilience can be developed, please give me some examples on how can personal resilience be developed when faced with challenges.

***Organisational Resilience (How adaptable? How they share roles and responsibilities?  
How quickly are they able to make decisions when faced with adversity...)***

- What do you understand by the term resilience of a business?
- Can you describe some examples of when your business has shown resilience?
- What are the factors that you think make your business resilient or not?
- What role does staff play in the recovery of your business?
- What role does leadership play in the recovery of your business?
- What role does your relationships with others (e.g., suppliers, community members) play in the recovery of your business?
- What role does innovation and creativity play in the recovery of your business?

## 7.2 Coding scheme

### ***The nature of the business:***

The nature of the business – SME with less than 10 employees  
The nature of the business – SME with more than 10 employees  
The nature of the business – no employee  
The nature of the business – new business  
The nature of the business – established business  
The nature of the business – new business – lack connectedness

### ***SME:***

SME – flexibility – backup livelihood  
SME – flexibility – increased psychological resilience  
SME – owners have to have the ability to cope in order to survive  
SME – lack preparedness for earthquakes  
SME – personal life business life intertwined  
Tourism SME – have to be resilient by nature  
Tourism SME – lifestyle business rather than profit-focused

### ***Entrepreneur:***

Entrepreneur – perceived perseverance  
Entrepreneur – entrepreneurial decision-making – firefighting approach  
Entrepreneur – entrepreneurial decision-making – impacted by the perceived speed of recovery  
Entrepreneur – SME owners and managers – see the earthquake as a catalyst to change the business model

### ***Earthquake:***

Earthquake – huge environmental damage – challenge for tourism activity businesses  
Earthquake – huge financial impact  
Earthquake – huge impact on mental state  
Earthquake – huge human resource impact  
Earthquake – dramatically decreased tourist number

Earthquake – huge impact on infrastructure

***Self-efficacy:***

Self-efficacy – confidence in self ability

Self-efficacy – magnitude

Self-efficacy – generality

Self-efficacy – strength

Self-efficacy – not always persevere – depends on mental state

Self-efficacy – perseverance in coping with adversities

Self-efficacy – the ability to strengthen the relationship among staff

Self-efficacy – perseverance – entrepreneurial trait

***Hope:***

Hope – goal – goal setting to increase hope

Hope – goal – changed because of the earthquake

Hope – goal – not changed because of the earthquake

Hope – pathway – methodical

Hope – pathway – realistic

Hope – pathway – pragmatic

Hope – pathway – the ability to find alternative pathways

Hope – pathway – forward looking

Hope – agency – strong self-determination

Hope – agency – weak self-determination

Hope – influenced by mental state

***Optimism:***

Optimism – lower expectation – increased optimism

Optimism – perceived optimism – positive outlook on future goals

Optimism – perceived optimism – going forward and seeing changes for better

Optimism – perceived optimism – hopeful

Optimism – perceived optimism – has the energy to do the work

Optimism – remained optimistic after the earthquake

Optimism – believes in the positive outcome in the end

Optimism – related to entrepreneurial venture creation intention

Optimism – realistic optimism

Optimism – perceived optimism level extremely high (9-10)

Optimism – perceived optimism level pretty high (7-8)

Optimism – perceived optimism level above average (6)

Optimism – perceived optimism level below average (<5)

Optimism – see growth opportunities out of the earthquake

Optimism – found ongoing positive factors out of the earthquake

Optimism – learn from the earthquake for the future

Optimism – SME owners/managers negative external still positive

Optimism – SME owners/managers positive within control

Optimism – responsibility being one of the factors

Optimism – who have experienced more difficulties were less likely to be optimistic

Optimism – easily affected by negative people

Optimism – mind controllable by owners/managers

Optimism – mind not controllable by owners/managers

Optimism – positive thinking makes money

Optimism – fluctuates by physical and mental wellbeing

***Psychological resilience:***

Psychological resilience – the ability to find alternative pathways

Psychological resilience – responsibility being one of the premises

Psychological resilience – luck being one of the premises

Psychological resilience – perceived psychological resilience

Psychological resilience – adaptiveness

Psychological resilience – previous experience with earthquakes acts as a coping mechanism

Psychological resilience – previous experience with difficulties acts as a coping mechanism

Psychological resilience – inborn nature (trait view)

Psychological resilience – developable nature (process view)

Psychological resilience – mixture of inborn and developable

Psychological resilience – connectedness

Psychological resilience – keeps the owners/managers strong and continue operating the business

Psychological resilience – positive outlook

Psychological resilience – perceived psychological capital resilience – bouncing back

Psychological resilience – perceived psychological capital resilience – adaptable

Psychological resilience – perceived psychological capital resilience – being positive

Psychological resilience – perceived psychological capital resilience – practical

Psychological resilience – perceived psychological capital resilience – rapidly make a decision

Psychological resilience – perceived psychological capital resilience – calm

Psychological resilience – perceived psychological capital resilience – adjustment

Psychological resilience – perceived psychological capital resilience – coping

Psychological resilience – perceived psychological capital resilience – focused

Psychological resilience – perceived psychological capital resilience – collected thoughts

Psychological resilience – perceived psychological capital resilience – organised

Psychological resilience – perceived psychological capital resilience – strong-willed

Psychological resilience – perceived psychological capital resilience – have plans

Psychological resilience – perceived psychological capital resilience – being able to source things

Psychological resilience – perceived psychological capital resilience – move on

Psychological resilience – perceived psychological capital resilience – perseverance

Psychological resilience – perceived psychological capital resilience – find alternatives

Psychological resilience – perceived psychological capital resilience – determination

Psychological resilience – perceived psychological capital resilience – future-oriented

Psychological resilience – perceived psychological capital resilience – pragmatic

Psychological resilience – perceived psychological capital resilience – never give up

Psychological resilience – perceived psychological capital resilience – keep things in perspective

Psychological resilience – perceived psychological capital resilience – honest about feeling

***Organisational resilience:***

Organisational resilience – proactive posture

Organisational resilience – planning strategies

Organisational resilience – participation in exercises

Organisational resilience – capability & capacity of external resources (network)

Organisational resilience – recovery priorities

Organisational resilience – minimisation of silo mentality

Organisational resilience – capability & capacity of internal resources

Organisational resilience – staff engagement & involvement  
Organisational resilience – information & knowledge  
Organisational resilience – leadership, management & governance structures  
Organisational resilience – innovation & creativity  
Organisational resilience – devolved & responsive decision making  
Organisational resilience – internal & external situation monitoring & reporting  
Organisational resilience – opportunity to bounce back and be even better  
Organisational resilience – SMEs lack financial resilience at the initial stage  
Organisational resilience – decreased by seasonality  
Organisational resilience – increased by the passion and love for the business  
Organisational resilience – increased by flexibility  
Organisational resilience – increased by personal resilience of the owner/manager  
Organisational resilience – increased by adaptiveness of the owners/managers  
Organisational resilience – increased by rapidity of owners/managers  
Organisational resilience – increased by perseverance of the owners/managers  
Organisational resilience – planned resilience  
Organisational resilience – adaptive resilience  
Organisational resilience – decreased by the uncertainties of the road status  
Organisational resilience – increased by sound reputation  
Organisational resilience – increased by the resilience of the guests  
Organisational resilience – increased by the customer service attitude of the owner/manager

***Coping mechanism:***

Coping mechanism – avoidance – the ability to distant from the problem and take an objective view  
Coping mechanism – social referencing  
Coping mechanism – social support  
Coping mechanism – doing things for others  
Coping mechanism – personality trait  
Coping mechanism – rational thinking  
Coping mechanism – positive thinking  
Coping mechanism – emotional support  
Coping mechanism – emotional venting  
Coping mechanism – previous experience

Coping mechanism – problem-focused

Coping mechanism – emotion-focused

***“Macro” level support:***

Macro level support – government subsidies – only to cover general running costs

Macro level support – government grant – applicable by established businesses

Macro level support – government grant – given to established businesses without application process

Macro level support – not applicable by new businesses

Macro level support – charity support

***“Meso” level support:***

Meso level support – local business support

Meso level support – local organisation’s support

Meso level support – local council – disappointing

Meso level support – new businesses didn't receive

***“Micro” level support:***

Micro level support – friends support – keeps the spirit up

Micro level support – family member support



## 7.3 Excel file for thematic analysis

			PsyCap Dimensions			
Interview	note	psychological resilience(process vs trait)	self-efficacy	optimism	hope	psychological resilience
1	Siana - no employee	Process	Yes	Yes	Yes	Yes
2	Lee - less than 10 employees	Both	Yes	Yes (7-8)	No	Yes
3	Lynne & John - no employee	Process	Yes	Yes (9/8)	Yes	Yes
4	Alison - no employee	Both	Yes	Yes (9.5)	Yes	Yes
5	Alistair - no employee	Both	Yes	not much	Yes	Yes
6	Murray - more than 10 employees (14)	Trait	Yes	Yes (9)	Yes	Yes
7	Claire (manager) - less than 10 employees quite new business	Process	Yes	Yes (7)	Yes	Yes
8	Laura & Paul - no employee very new business	Process	Yes	Yes (10/7)	Yes	Yes
9	Mark - no employee	Process	Yes	Yes (8)	Yes	Yes
10	Chris (manager) - more than 10 employees	Trait	Yes	Yes (7)	Yes	Yes
11	Craig (manager) & David (owner) - no other employee	Process	Yes	Yes (8)	Yes	Yes
12	Viv - less than 10 employees	Both	Yes	Yes (7)	Yes	Yes
13	Myra - no employee very new business	Both	No	not much (5)	No	Yes
14	Eve (owner) & Sam (her son) - less than 10 employees (9)	Both	Yes	Yes (8)	Yes	Yes
15	Venassa - less than 10 employees (8)	Process	Not much	Yes (fluctuates)	Yes	Yes
16	Lisa (owner) & Nathan (manager) - less than 10 employees	Both	Yes	Yes (10)	Yes	Yes
17	Ed - less than 10 employees	Process	Yes	Yes (9)	Yes	Yes
General		Process	Yes (15) No/not much (2)	Higher than average (>5) (owners/managers with more difficulties less optimistic)	Most participants - yes (owners/managers with more difficulties less hope)	Yes (17)

Coping Mechanisms														
		coping mechanism 1 avoidance	coping mechanism 2 social referencing	coping mechanism 3 social support	coping mechanism 4 doing things for others	coping mechanism 5 personality	coping mechanism 6 problem-focused	coping mechanism 7 emotion-focused	coping mechanism 8 rational thinking	coping mechanism 9 positive thinking	coping mechanism 10 emotional support	coping mechanism 11 emotional venting	coping mechanism 12 previous experience	
Interview	note													
1	Siana - no employee	Yes	Yes	Yes	No	No	Yes	yes	Yes	Yes	No	No	No	
2	Lee - less than 10 employees	No	No	No	No	No	No	yes	Yes	No	No	No	No	
3	Lynne & John - no employee	Yes	No	Yes	Yes	No	Yes	yes	Yes	Yes	No	No	Yes	
4	Alison - no employee	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	Yes	No	No	Yes	
5	Alistair - no employee	No	Yes	Yes	No	No	Yes	yes	Yes	Yes	No	No	Yes	
6	Murray - more than 10 employees (14)	Yes	No	No	No	Yes	Yes	yes	Yes	Yes	No	No	No	
7	Claire (manager) - less than 10 employees quite new business	Yes	Yes	Yes	Yes	No	Yes	yes	Yes	No	No	No	Yes	
8	Laura & Paul - no employee very new business	Yes	Yes	Yes	Yes	No	Yes	yes	Yes	Yes	No	No	Yes	
9	Mark - no employee	Yes	No	Yes	No	No	Yes	yes	Yes	Yes	No	No	Yes	
10	Chris (manager) - more than 10 employees	Yes	No	Yes	No	Yes	Yes	yes	Yes	Yes	No	No	Yes	
11	Craig (manager) & David (owner) - no other employee	No	No	No	No	Yes	Yes	yes	Yes	Yes	No	No	Yes	
12	Viv - less than 10 employees	Yes	Yes	Yes	No	Yes	No	yes	Yes	Yes	Yes	Yes	Yes	
13	Myra - no employee very new business	Yes	No	No	No	No	No	yes	Yes	Yes	No	No	Yes	
14	Eve (owner) & Sam (her son) - less than 10 employees (9)	Yes	No	Yes	No	Yes	Yes	yes	Yes	Yes	No	No	Yes	
15	Veronica - less than 10 employees (8)	Yes	Yes	Yes	Yes	No	Yes	yes	Yes	Yes	No	No	Yes	
16	Lisa (owner) & Nathan (manager) - less than 10 employees	Yes	Yes	Yes	Yes	No	Yes	yes	Yes	Yes	No	No	No	
17	Ed - less than 10 employees	Yes	Yes	Yes	Yes	No	Yes	yes	Yes	Yes	No	No	Yes	
General		Yes (14) No (3)	Yes (9) No (8)	Yes (12) No (5) (strongly self-determined participants less social support; business far from the town centre less social support; new business less social support)	Yes (7) No (10)	Yes (6) No (11)	Yes (13) No (4)	Yes (17)	Yes (17)	Yes (15) No (2)	Yes (1) No (16)	Yes (1) No (16)	Yes (13) No (4)	

Planning										Adaptive Capacity				
Interview	note	Change ready				Networks & relationship				Leadership & culture				
		proactive posture P1	stress testing plans P4	planning strategies P3	unity of purpose P2	effective partnerships P5	breaking silos AC4	leveraging knowledge AC5	internal resources AC2	decision making AC6	staff engagement AC3	leadership AC6	situation awareness AC1	innovation&creativity AC7
1	Sina - no employee	No	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Yes	No
2	Lee - less than 10 employees	No	No	No	Yes	No	No	No	Yes	No	Yes	Yes	No	No
3	Lynne & John - no employee	No	No	No	No	No	No	No	Yes	Yes	-	Yes	Yes	Yes
4	Aileen - no employee	No	No	No	No	Yes	No	No	Yes	Yes	-	Yes	No	Yes
5	Alister - no employee	Yes	No	No	No	Yes	No	No	Yes	No	-	-	Yes	Yes
6	Mummy - more than 10 employees (14)	No	No	No	Yes	No	No	No	Yes	No	Yes	Yes	No	Yes
7	Clare (manager) - less than 10 employees quite new business	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes (staff decision making)	Yes	Yes	Yes	Yes
8	Laura & Paul - no employee very new business	No	No	Yes	No	No	Yes	No	Yes	Yes	-	-	No	Yes
9	Mark - no employee	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	-	Yes	No	Yes
10	Chris (manager) - more than 10 employees	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	-
11	Craig (manager) & David (owner) - no other employee	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	-	Yes	Yes	Yes
12	Viv - less than 10 employees	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
13	Myra - no employee very new business	No	No	Yes	Yes	No	Yes	No	Yes	No	-	Yes	No	Yes
14	Eve (owner) & Sam (her son) - less than 10 employees (9)	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
15	Veronica - less than 10 employees (8)	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	-
16	Lisa (owner) & Nathan (manager) - less than 10 employees	No	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
17	Ed - less than 10 employees	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
General		Yes (9) No (8)	No (17)	Yes (10) No (9)	Yes (7) No (10)	Yes (11) No (6)	Yes (4) No (13)	Yes (7) No (10)	Yes (17)	Yes (13) No (4)	Yes (9) No (1) no employee (7)	Yes (15) not mentioned (2)	Yes (10) No (7)	Yes (12) No (2) not mentioned (3)

Interview	note			Support		
		adaptive resilience	planned resilience	macro support	meso support	micro support
1	Siana - no employee	Yes	No	Yes	Yes	Yes
2	Lee - less than 10 employees	Yes	No	-	-	Yes
3	Lynne & John - no employee	Yes	No	Yes	Yes	No
4	Alison - no employee	Yes	No	Yes	Yes	Yes
5	Alistair - no employee	Yes	No	Yes	-	Yes
6	Murray - more than 10 employees (14)	Yes	No	Yes	-	Yes
7	Claire (manager) - less than 10 employees quite new business	Yes	Yes	No	No	Yes
8	Laura & Paul - no employee very new business	Yes	No	No	No	Yes
9	Mark - no employee	Yes	No	Yes	Yes	Yes
10	Chris (manager) - more than 10 employees	Yes	No	Yes	Yes	Yes
11	Craig (manager) & David (owner) - no other employee	Yes	No	-	Yes	No
12	Viv - less than 10 employees	Yes	No	Yes	Yes	Yes
13	Myra - no employee very new business	Yes	No	No	No	Yes
14	Eve (owner) & Sam (her son) - less than 10 employees (9)	Yes	No	Yes	Yes	Yes
15	Venassa - less than 10 employees (8)	Yes	No	Yes	Yes	Yes
16	Lisa (owner) & Nathan (manager) - less than 10 employees	Yes	No	Yes	Yes	Yes
17	Ed - less than 10 employees	Yes	No	-	Yes	Yes
General		Yes (17)	Yes (2) No (15)	Yes (12) No (3) Not mentioned (3) (new business less macro level support; established business more macro level support)	Yes (11) Not mentioned (6) relatively the same with the finding for "effective partnerships"	Yes (15) No (2)